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'Quantam ego quidem video motus morbei fere omnes a motibus in systemate nervorum ita pendent  
ut morbi fere omnes quodammodo Nervosi dici queant.'—CULLEN'S NOSOLOGY: BOOK II. P. 181—  
EDINBURG, ED. 1780.

THE  
**Alienist and Neurologist**

A JOURNAL OF  
Scientific, Clinical and Forensic  
**NEUROLOGY AND PSYCHOLOGY,  
PSYCHIATRY AND NEURIATRY.**

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Intended Especially to Subserve the Wants of the  
General Practitioner of Medicine.

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**VOLUME XXIV.**

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SOME IDEALS OF THE MEDICAL TEACHER\*

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By JAMES H. McBRIDE, M. D.,

LOS ANGELES,

Member American Academy of Medicine.

**T**HOUGH we are here primarily to do honor to one whom we all love, we are also here as college men to further if possible college interests, and I shall while away my fraction of the hour with remarks on the duties and ideals of the medical teacher.

It is, of course, necessary that in much of what I say I should point a local moral, but I wish also to consider you as men working in a common cause with medical teachers everywhere, as members of a great fraternity unhindered by distance, nationality or language.

My thanks are first due to you for the position which you have given me. Its usefulness will depend upon my ability to apply its opportunities in practical ways for the good of the college. In administering a trust the man is essentially the position, and so far as results are concerned every position is just the size of the man who occupies it.

---

\*Remarks at a banquet given to Dr. H. G. Brainerd, the retiring Dean of the Medical Department of the University of Southern California, September 15, 1902. Reprinted from *Southern California Practitioner* for October, 1902.



A great place may be made small if a small man attempts to fill it and the position of a dean of a medical college shrinks to the size of a small personality or expands to the measure of a big one; and if it confers honor upon a man it is largely because he, having high ideals, lifts the position to their level.

It hardly seems necessary to remind you that medical education in the United States is far superior to what it was twenty or even ten years ago. Since the organization of the association colleges have approximated in their methods, medical education has been elevated and unified and graduates have been better prepared for practice. In fact higher educational standards will always achieve just this result, for not only will men be better instructed but a better class of men will be attracted. Any college that cares for quality rather than quantity, that cares to send out men who know, and know thoroughly and know in practical ways, the very best that medical science has to give, is a college that will in the long run attract the best men, and through these it will get reputation that will draw numbers as well as character.

With the exception of the position of parent there is no calling in life more serious than that of teacher, none that has in its results more of human destiny. It is a serious thing even to be a grown up, for to be this is to daily influence by example and in other ways the lives of the young. Still more serious is it to be a teacher, for the teacher is an exemplar, he does more than impart knowledge, he trains the faculties and disciplines men in laws, in principles, in methods; he creates enthusiasm, he inspires to achievement, he is a maker of character. The great teachers all through the centuries from Plato to Comenius and Mark Hopkins have been primarily character builders; they have brought out the best in others, have helped the weak to be strong, and taught the strong how to add to their strength: they have inspired others to work, and have made actual and effective the potential qualities of character.

I assume that every member of this faculty is a

teacher in the best sense, and that every one is a worker, that each one is devoted to the best interests of the college and is determined to give it the very best service he is capable of. I assume that there is no room in Southern California for a second-class medical college, that there is no room in this college for second-class professors, and, if I may be allowed the use of a Hibernianism, that there is still less room for second-class students. The day of the Col. Sellers and the Doc Goodfellows in the medical profession is passed. The doctor of the future may be a genial man, but primarily he will be a cultured gentleman and a scientific man in the broadest sense, and the time is not far distant when he will be a college graduate before having a medical degree.

The efficiency of a college shows in the character of its graduates, not alone in their medical training, but also in their character as men and citizens. We want to bid for first-class men, men of talent and zeal, men of clean lives and the finest character, and who care to be something besides mere pill peddlers. As each human life is just about what each one aspires to, so every institution becomes what those who shape its affairs strive to make it. Carelessness and laxness in standards, indifferent teachings and commercial ideals will make any medical college common and cheap, an institution the better class of men will avoid. A college that has high standards and does first-class work, that yields to no temptations of commercialism, nor cheapens its work to draw a crowd, will have the only kind of success that wears the name of decency.

To those of you who helped to found this college seventeen years ago the institution does not seem young. It has a good building and one of the best equipped pathological laboratories in the United States. This is no small achievement, for it has meant much self-denial and laborious and unrewarded years to some of you, except the reward of having done a good work. Yet this college is still young, the country itself is young, Southern California is still in its youth; we are in the midst of the tedious and trying process of organizing those social forces that are to

be the foundation of the future. The builders of States are not the great people, they are the humble, honest, unselfish, faithful people who possess in a high degree the elementary and simple qualities of character, industry, frugality and the like, qualities that are worth more and have been worth more to the race than all art and all science and all learning. And it is primarily these qualities that build institutions like this.

It behooves us as medical men to stand with the best, to require as I believe you do, that the members of our faculty rank with those of other faculties, and that our students be men who, when they graduate are equal in acquirements to students in any college. Every member of this faculty should be, and I believe, is the best equipped man that can be got for his special work, a man who can stand up in any company of his peers and discuss medical subjects to the credit of himself and the college.

To be this and to do this means that every one of us should be a student, that we should be teachable, that we should be growing men. The growing men are the progressive men who have high standards; they are the men who *care*, the men who do things, the men who are always young, and who every year pitch their tents upon higher levels of life. It is not an easy thing to be a growing man; in fact, it is a very difficult thing; it is about the hardest chore a man can set himself, and it appeals to the highest qualities of manhood. To be a growing man is to be a student three hundred and sixty-five days in the year; it is to be always looking forward; it is to be an industrious man, a persistent man, a man devoted year after year to doing the best things in special lines of work, and all this is a severe and daily test of character.

Every physician who practices medicine in Southern California will doubtless agree with the statement that in the higher sense professional life here is isolated. We are far from the great medical centers and we lack in some degree the inspiration and incentive that comes of contact with those who are connected with great institutions, either hospitals or colleges, or who have the advantage of



the constant drill that is unconsciously got in large cities.

The world has always grown and still grows by co-operation. Men are what they are by reason of the contacts of daily life, the attrition of man with man, the mutual helpfulness that comes of the common interests and even of the contests of life, that furnish discipline and sharpen faculty, that stimulate research and make men every day anxious to learn and eager for the fray.

Great cities have this, great institutions are made by it and exemplify it in their ever-growing and complex routine, and men who live under such influences have their lives renewed and inspired by them.

In Southern California we are denied much of this, and it is necessary that we supply this deficiency with diligent work among ourselves, and by seeing as much as possible of the work of the best men in eastern cities.

If every member of this faculty would spend two months every two or three years working in eastern hospitals, the professional equipment of the members would be improved and the reputation of the college as being composed of progressive working men would be of benefit to the institution. We all need this contact with eastern men. We would come home not only with additional knowledge, but what is vastly of more benefit, we would return with renewed enthusiasm.

As a part of this same plan to link us to the best of the profession at large, it would, I think, be well for the faculty to secure the services of some one of medical fame and high character in the East to deliver a course of lectures to the students and the profession of Southern California every year. If men, prominent in the profession in the east, could be induced to come here for this purpose it would be educative to the entire profession of Southern California and advantageous to this institution.

The profession of the country is watching with a critical eye the conduct and the product of every medical college. The period for competition for numbers is passed, and the time has come when the competition is in the value of instruction given. Medical colleges are giving yearly better

and better instruction and we cannot afford to be less progressive than the best, and every relation that we can establish with the best institutions and with progressive medical men will be helpful to us.

With our bacteriologic laboratory and physiologic apparatus we ought to begin to do research work. Research work is excellent discipline for the younger men and is also good occupation for the older practitioner. A man should never be too old to engage in it. Dr. Sidney Ringer and Dr. Lauder Brunton still do research work. Weir Mitchell not only does it himself, but is constantly inspiring young men to carry it on. There is nothing that does so much to give a medical man an interest in scientific medicine, or to develop intellectual momentum as original research. There is nothing that helps more to make comprehensible and attractive some of the hard problems presented in the sick room than original research along certain lines.

In work on animals the student sees the machinery of life while it runs, and gets an insight into the physiologic processes that he would not otherwise have. He will have a clearer mental picture of the vital mechanism, a more accurate insight into all those complex and orderly processes with which he must daily deal as a physician.

Every medical faculty should as individuals and as a faculty be devoted to the literature of the profession. We ought to be known as men who care for the best medical literature in the world. In these days of careful work and critical reviewing one can hardly write a creditable paper without knowing the recent literature of the world on the subject. He can only know this by having the recent journals and works to consult. Let us have a library. Let us not have it said that Los Angeles physicians are indifferent or so busy making money that they forget Bacon's maxim that "Every man is a debtor to his profession." A beginning has already been made and it is hoped that we may after a time and with your assistance have a good medical library at the college building.

More attention should be given in medical colleges to

teaching physiologic therapeutics, diet, climate, hydrotherapy, etc. While drugs were never used more discriminately nor more happily than now, yet there is a distinct tendency to emphasize the value of physiologic methods.

There is not necessarily any mystery about disease; it is a life process and works through laws that elsewhere make for health. It ought to be an important part of our therapeutics to utilize those natural forces through which life came and health is kept. Are air, exercise, electricity, which are so necessary to any living process in health to be discarded in sickness for tablets and the latest fad from a laboratory?

Cohen says the "disordered functions of the paralytic are equally physiologic with the co-ordinated functions of the athlete." That is, that disease is as natural as health. In the ataxia of tabes, physiologic processes, though pitifully crippled, are still at work, through substitution, or by round-about paths, or a thousand makeshifts of function. By using these natural means that I have referred to, we abbreviate and individualize in many ways those forces that have been part of life, and that have made it what it is, and to which every living thing has the race-old habit of beneficial reaction.

The older practice of writing a prescription and sending the patient on his uninstructed way with a pleasing illusion in his vest pocket was occasionally useful, but it was so easy that physicians sometimes became routine givers of drugs. The physician who regulates the patient's daily life is doing what is intellectually more expensive than the other, but it is the scientific way and the correct way, and the medical man who does this is as much above the mere drug giver as the architect is superior to the carpenter.

It is a thousand times unfortunate that this side of medicine has been so long neglected. One result has been that many people never having been told how to live in order to be well or to get well, and weary of the round of drug stores, have gone to the Christian scientists and their like, who at least have the merit of giving their victims something besides their ills to think about, however poor

the quality of the thinking. We hope to have this winter lectures on the Hygiene of the Mouth, a subject of great importance to health, and in the near future we should arrange for lectures on dietetics and instruction in scientific cookery. I hold that every doctor should himself have experience in preparing food, and gain a practical knowledge of that art which probably has more to do with human health and happiness than any other two influences that touch the life of man.

As everyone owes his brain power and his personal capital of health largely to the toilsome lives of those who have gone before him, so we in common with all medical men are debtors to the Harveys of our profession, the growing men, the discoverers of all ages both great and small, renowned and obscure, who through love of knowledge and of their kind, have built up and handed on to us the science that we make use of.

Our debt to others is and will remain infinitely greater than our achievement. All that we can do is to add to human knowledge and lessen suffering is but a beggarly work in comparison to the stock of knowledge and experience that we inherit as a part of the intellectual capital and social equipment of the race.

Consider the hundreds of men, physicians, physicists, chemists, and others who lived, and most of whom toiled and died in obscurity, before a Pasteur, profiting by their work, could make his great discoveries. The systematized and organized knowledge that goes to make up what we call science is being accumulated, sifted and arranged by many men all over the world, and it is upon this work of the forgotten thousands that such geniuses as the Pasteurs and the Virchows build and finally attain an immortality.

We, too, should strive to be builders, not of our private fortunes and our petty fame, but of a solid foundation for the profession of the future that in this vicinity at least will inherit what is good in our work.

In these days the pioneer stage is brief, and this young empire of Southern California, within whose boundaries all of New England could be placed, has grown rapidly toward



the organized, refined and cultured life of the older States. No part of the Union has come so near being born and grown to maturity over night as Southern California. From Maine to Pennsylvania people have come here in train loads and by the thousands representing the intelligence, the aggressiveness and the success of the East.

There was never better material nor higher incentives for those, who, like us, have been appointed as builders of institutions, than are to be found here and now. We should attract young men to our corps of teachers, for with the preparation now obtained in colleges they are especially desirable. Institutions such as this should always welcome young men who have had special training at home and abroad, who are the product of that best modern combination, the drill of the laboratory and the discipline of the clinic; men who are capable, ambitious and unselfish, and who, when you and I lay down our work, will be able to take it up and do as much better than we have done, as the age that succeeds us will be better than ours.

If in our clinical teaching all our material is utilized, if methods are adopted that will bring out the entire value of every case, we can find here in this city all that we need for this work.

The vital thing in clinical teaching is thoroughness. Quantity of material and variety of clinical forms are important, yet they are of secondary value to the painstaking care that never omits a fact in the pathological history, for by this the student will come to see the advantage and develop the habit of careful, minute and systematic investigation. This can be done in a city of one hundred and thirty thousand if the teaching is of the right sort.

The history of medical men in Germany and in this country shows what can be done in clinical investigation or in surgery or in original research in the smaller cities. President Garfield's remark that a student on one end of a log and Mark Hopkins on the other end made a university, is significant here; it is not alone the size of the amphitheater nor the quantity of the material, it is the man and the method. By such methods the student learns to track

every symptom to its source, and to correctly interpret the language of every sign.

The physician who has had this drill will have a system in his work that adds to the effectiveness of talent and he will differ from the man who is without it as the lawyer differs from the notary. He finds there is nothing irregular or haphazard about disease, that the morbid undoing of life is as orderly as the health processes, that in the language of John Locke, every morbid condition has its natural history, the business of the physician being to find the order hidden in the seeming chaos of disease. The habit of taking pains that such methods develop and the resulting skill in diagnosis have made the fame of the Trosseaus, the Stokes, the Fengers and the Oslers.

You and I in common with all medical teachers are on trial. Every year we will meet a more intelligent and a more exacting criticism. Are we the men, and have we the methods? If we are to meet the increasing demands that will be made of us, our work can answer these questions only in the affirmative.

In our teaching we must lay increasing emphasis upon the relation of chemistry and physiology to clinical medicine. The chemistry of life is no longer a vague phrase, and chemical pathology is a part of science that every physician must be acquainted with. The importance of sodium in the elimination of carbon dioxid, the relation of acid intoxication to diabetic coma, and other illustrations that will occur to you show how directly our therapeutics depend upon a knowledge of physiologic and pathologic chemistry.

We doctors should cultivate more intimate personal and professional relations. The differences of doctors have furnished occasion for many a sneer at our profession. So much of a doctor's success is due to personal popularity that unfriendly rivalries occur, and small men sometimes descend to the petty and vulgar business of jealousy. Happily there is less of this in the profession than formerly; the more intimate professional relations of physicians and a cultivation of interests that are more scientific have made rivalries less unfriendly; generosity, kindness and a sense

of brotherhood are growing in spite of self-seeking and of those odious qualities that belong to the slums of human nature.

The profession of this city should have clubs and societies where they come together frequently for professional and also for social purposes. The members of this faculty should have a meeting of this kind as frequently as twice a year. There is a great advantage, and one that has in it humanizing tendencies in meeting your competitors and your associates away from the formalities of business and under conditions that inspire good fellowship. In the rivalries and clashes of the day men perpetually misunderstand each other. The man who is indifferent to you or who dislikes you will hardly be able to conceal it, for here at least the features and the manners gossip, while the hundred of admirers who pass you hurriedly by with only a nod may give no sign of friendliness.

Some one should write a book on the advantages of getting together, with a chapter in italics for doctors. What a really good fellow Dr. Coldshoulder is when in the companionship of a banquet you have cracked the shell of his reserve and the smoke of your cigars has mingled and narcotized old animosities.

Our lives as doctors are public and for the public. All lives are essentially so, for separate as the individual life seems to be, yet each one as he goes about his daily business is going also upon the errands of society. Nature has so arranged it that we live under a perpetual illusion, for while we seem to be accomplishing only our private and personal ends, yet in a larger sense we are serving society, whose beautiful and moving order antedated and will survive us. Our professional work therefore is a contribution to society, for in all we do we serve, and when we shall have left this world, the things that we have done here that our friends will care to mention, or that the world will remember, will be those only wherein we helped mankind by furthering the social purpose. Considering that society protects us in all we have, and helps us to be what we are, that our property is made safe, our homes guarded,

schools established, violence prevented, justice assured us, we should have a personal interest in the welfare of the community. Medical men especially should interest themselves in everything that relates to public health, from the condition of the streets to the health of the children in the public schools. I have not a doubt that if even three or four courageous men among our local physicians would take an interest in the health of the children in the public schools of this city, not only would much suffering be prevented, but the average of the health and the vital capacity of the next generation in this community would be increased.

Though we may not be able, ourselves, to see it, these must be fortunate days for us and our work. Not the least advantage in teaching is the benefit to the teacher himself, and then, too, in many ways that he may never know of, he is helping to make the world a little better and is adding to the sum of human happiness. It is a most difficult thing to assess man's work at its real value, to see in it what is permanent, and what is transient. A Wallenstein or a Gustavus Adolphus may sweep through Europe and change the map of empires and yet a century later the historian may quietly sum up in a few pages all that history has to say of what he did; while a Plato or a Froebel, modest, sweet tempered and careless of fame, works on without display and the ages are his debtor.

In smaller ways than this, though in no less real ways, every teacher has an enduring influence, and through the character that he helps to make the projects his life ideals into the future. Prof. Thomas Davidson, the great teacher, said that students got more benefit from their association with their teachers and with each other than from all they learned at college. The teacher becomes an ideal for the student, and long after what he has taught has been forgotten his personality may be an enduring influence and inspire the lives of others.

This institution has an obligation common to all where teaching is done, and that is the obligation to grow—to grow in method, in facilities, in quality of instruction and in



reputation. The world of knowledge grows, sciences are forever being reconstituted and medical teaching must meet the demands of progress. It is not a reproach; it is the glory of our profession that it changes. New facts come with experience, old theories are recast, old remedies are abandoned, and it is only in this way that medical science gains in accuracy and definiteness. Seventeen hundred years ago a celebrated physician said there seemed to be nothing left for the medical man of the future to discover. We have learned, however, that there is nothing final in human knowledge, and that in spite of all the facts that physicians have put in tomes, we are yet but at the beginning of what medicine will be; we are explorers who have but touched the confines of an unknown continent. We cannot now, or at any time, stop with the work of yesterday. No plan that we can devise, no improvement that we can make, no helpful influence that we can draw to our aid, is to be considered as final; each gain is only another advantage from which we are to go on to new achievement.

Every year these questions must come to us as a faculty; how are we to meet the new conditions, what are we to do that will make our teaching better, how can we add to the value of the work of this college?

Representing, as we do, an educational institution, we are an important factor in the growing and complex life of this commonwealth; and as medical teachers we have a responsibility that goes to the vital issues of the life of society, a responsibility that concerns all the relations of men, that enters into every home, sits at every fireside, deals with the most sacred confidences, and with the hopes and lives of men. We must not, ourselves, fall below the highest standard; we must strive to be at the front, and help in common with the army of progressive medical men to gain those peaceful victories whereby human suffering is lessened, and character is shaped and the lives of men made better.

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# HEMORRHAGIC INTERNAL PACHYMENINGITIS IN THE INSANE.

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By J. E. COURTNEY, M. D.,

Assistant in Neurology, Gross College of Medicine, Denver, Col.

GOWERS on "Diseases of the Nervous System" as late as 1898 says of the above disease "the malady is very rare and it is indeed of interest chiefly as a pathological curiosity enigma, for it has not often been suspected during life." Any one who has done many autopsies on the insane knows that the statement does not hold for this class.

Since 1896 when I published an illustrated article on this subject in the New York State Hospital Bulletin I have seen a number of cases and performed several autopsies. It is perfectly possible to diagnose the condition which is a valuable and gratifying thing to do, although little more than palliative measures for relief can be applied since the causative conditions continue to act.

In my autopsies on the insane, the condition was found more or less pronounced in nearly 10 per cent of all cases. Blackburn, of the Government Hospital for Insane at Washington, D. C., in a special report on the subject, in 1897 found it in 197 cases in 1185 autopsies, and he left out 12 cases in which "the inner surface of the Dura showed faint rust colored pigmentation without demonstrable new membrane." The writer has always counted these cases, considering them as belonging to one of the stages of Pachymeningitis. Blackburn's large per cent may

be due to a larger number of alcoholics and general paralytics in his series of autopsies.

I have never observed the membrane any more than loosely attached to the Dura and never strong or tough adhesions in any sense resembling pleuritic adhesions, the result of fibrinous exudate without hemorrhage.

The pathology of the condition has been much disputed but it certainly seems to be hemorrhagic, antedated, of course, by inflammatory changes in the Dura, Pia, and degenerative and vaso-motor changes in the cortical circulation. In traumatic cases such antecedent conditions need not exist, the initial hemorrhage being the direct and immediate result of the injury.

Drs. Spiller and McCarty, of Philadelphia, in the case of a 9-year old imbecile girl found the adventitious membrane in various stages of organization and absorption and formation of vessels. Their experiments on cats failed to produce any false membrane by simple irritating to inflammation the inner surface of the Dura. Whereas an induced subdural hemorrhage in these cases did produce a false membrane. The induction of a simple acute inflammation then does not suffice to explain the formation of membrane, there must be a highly congestive state of some duration. The percentages in which the condition is found in the several types of insanity are about as follows: 40 per cent each of general paralysis and alcoholism and 20 per cent made up about equally of senility and the various terminal dementias.

In general paresis and alcoholism the cerebral excitation, repeated and violent engorgement of the cerebral vessels and conditions generally of meningo cerebritis account for the initial hemorrhage, the subsequent ones being always easier. In the dementias and senility with atrophy; the active causes are deterioration of the vessels and lack of support and a certain amount of suction caused by the shrinking of the brain in the skull cavity. A slight hemorrhage may cause only symptoms of irritation masked by the mental condition and the blood being absorbed leaves only a rusty stain or a very delicate adventitious layer

which on autopsy will peel from the surface of the Dura, like the skin from a scalded tomato. A film of this membrane under the microscope without any preparation shows vessels with delicate hyaline walls, and spots of pigment left from the absorbed blood. Once hemorrhage occurs the membrane forms by a process of absorption, organization and attenuation and attains a feeble circulation of its own. The hemorrhage is more common at the vertex, the limits of the spread of the blood being determined by the amount, and the distance it may force itself between the brain and the Dura; the thin outer edges solidifying first forms the margin of the future sack. Successive hemorrhages may take place from the walls of this new membrane and going through the same process a number of layers may form, and finally a large hemorrhage take place between these layers making a haematoma and causing the marked symptoms on which a diagnosis may be based. The tolerance of the brain to pressure under these circumstances, if the haematoma forms slowly, is wonderful in one of my cases; the sack was actually tied to prevent the escape of blood and taken out to be photographed; See Fig. 3. A knowledge of the pathology and course of this trouble enables one to explain many obscure symptoms in the progress of some case of insanity. There may be evidence of cerebral irritation, shocks and symptoms of compression disappearing when the pachymeningitic hemorrhage is absorbed; these phenomena may be repeated several times. In the rare cases occurring in persons not insane, subdural hemorrhages and absorption explains the peculiar accession and recession of symptoms of cerebral pressure. The same observations may apply in traumatic cases, in which subdural hemorrhage followed the injury.

A few cases of this disease in which autopsies were done are cited.

Case 1. Anna B., age 35, insane 12 years, dementia following mania; mother, uncle and maternal aunt insane and a sister epileptic; first evidence of this disease was an epileptic seizure; it was short, she did not go to bed. One month later she had another attack. The pupils were

contracted and irresponsive, and gait ataxic, but she kept up and the symptoms slowly improved; after another interval of about a month she had another epileptic seizure, coma, and died in 12 hours. Autopsy showed a reddish yellow, fine membrane on under surface of Dura over the vertex, temporo spheroidal region, and middle fossa, on under surface of this new membrane was a recent hemorrhage only slightly organized.

Case II. Adolph B., age 49, alcohol habitue, father died insane. Case of general paresis. Six months after attack began he was "prostrated" for several days; a year later he had a "very weak spell" and was in bed for several days, several times in the course of his disease he had paretic convulsive seizures. He died in three and one-half years from the beginning of the attack; he had become very demented and fatuous and died in a stuporose state. A large pachymeningitic membrane showing several layers covering the vertex on both sides Fig. 1.

Case III. Wm. B., age 42, single, intemperate, found asleep in a yard by police and locked up; could not tell anything satisfactory about himself, dull, irrational, shuffled when asked to walk, when examined he was depressed, restless, seemed unable to walk unaided and said some one had struck him on the head; pulse good, respiration twenty-one, temperature 101, pupils contracted. Slept four hours that night and next day continued dull, confused, incoherent and tremulous. In three days had a convulsion, shoulders twitched, face congested, pulse full and strong; he soon passed into a stupor with stertorous breathing. The next day he revived a little, had cough, dyspnoea, pain in chest and intermittent pulse, he died in the evening. Autopsy showed a large haematoma, covered by several layers of adventitious membrane, and full of blood and serum pressing deeply into the right hemisphere. See Fig. 2. The right pupil was still contracted at autopsy.

Case IV. Catherine D., female, age 40, found wandering about the streets and lodged in jail, charged with being "drunk and disorderly." She was incoherent, loquacious and at times lachrymose. She rubbed



the hair from the parietal eminences. Three months later she was restless one night and getting up fell to the floor, after which she was fatuous, mute and soon went into a state of coma with contracted pupils; she died in ten days, having shown little lucidity. Autopsy showed large haematoma over both parietal regions, containing three or four ounces of blood and serum. There were deep depressions into the hemispheres, the convulsions were flattened. The walls of the sack of the hamatome were organized so that the right was tied and removed; the left was ruptured in removal, but let in situ. See Fig. 3.

As to the treatment of the condition it is largely palliative and dependent upon the management of the associated and causative disease. Quietude and the administration of a mercurial cathartic and iodide of potash offer the best results. The utility of trephining except in traumatic cases is doubtful, while pressure might be relieved by emptying the haematoma, it would soon refill. Blackburn in the report already referred to cites a case in which trephining was done and two years later at autopsy, the condition remained apparently unchanged, the opening in the new membrane had closed and it had refilled. My conclusions have been:

1st. That hemorrhagic internal psychymeningitis is a disease peculiarly associated with insanity, especially general paresis, alcoholism and the dementias and occurring about twice as frequently in men as in women.

2nd. It consists first in hemorrhage and partial absorption and organization of the effused blood forming a membrane varying from a thin, rust colored film to a well defined membrane of several layers inclosing blood and serum.

3rd. The diagnosis can be based on contraction of the pupil (on the side of the membrane) or if haematoma exists partial hemiplegia hebetude and stupor or coma. Sometimes preceded by headache and convulsive movements. If such attacks are successive with partial disappearance of symptoms it is significant of repetition of small hemorrhages.







# THE NEURAL AND PSYCHO-NEURAL ASPECTS OF SURGICAL PRACTICE.\*

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By CHARLES H. HUGHES, M. D.,  
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I speak to you to-night by warrant of both surgical and neurological experience—an early life surgeon, later evolved by an unusual line of clinical experience into a neurologist. But like the memory and influence of an old love, my heart turns back to its first fancies and seeks to secure good to the object of its early affection. The first decade of my professional life was surgical; the latter has been medico-neurological.

Surgeons have long known the significance of knee pain in hip-joint disease through neural knee-joint connection. The importance of the nervous system in its relation to surgical diagnosis had a forceful exemplification in the case of the lamented President Garfield when that persistent pain in his toe and foot, which the distinguished patient complained of, was spoken of daily by him, without due notice being taken thereof by his surgeons, as referring (which it did) to its source of anatomic irritation in the lower lumbo-sacral spine, where a vertebral injury was discovered post-mortem, as having been in the track of the

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Note--This paper is part of a chapter in the author's forthcoming book in "Neurology and Neurlatry, Psychology and Psychiatry in Practice."

assassin's fatal bullet. (Tarsal branches, anterior tibial; branch of the external popliteal; branch of sciatic, origin of sciatic (great) lumbo-sacral-spine, sacral plexus, 1st, 2d, 3d and 4th lumbar; 1st, 2d and 3d sacral) That great operation on the nervous system, trigeminal gangliectomy, for which Spiller and Frazier now propose division of the sensory root within the cranium for tic douloureux, as a substitute for all other operations on the Gasserian ganglion, reminds us also how closely in touch are neurology and surgery, and the latter improved results, according to Krause and Carson's records for Gasserian ganglion excision, show the conjoined benefits of improved surgical technic and advanced neurotherapy. The screening of the eye alone doing much more to save the central nervous system than the external eye alone.

I first invite your attention to

#### TUFFIER'S LUMBAR PUNCTURE IN SURGICAL DIAGNOSIS AND PROGNOSIS.

Tuffier's remarkable lumbar punctures, which I have had the opportunity of witnessing in Paris, have developed much more than therapeutic significance. Tuffier himself gives the operation diagnostic significance in an article in the Bulletin and Memoirs of the Society of Surgery last year (No. 27), suggesting that subarachnoid effusion of blood mingling with the drawn cerebro-spinal lymph meant internal spinal fracture. Here is a diagnostic procedure of importance in obscure fracture of the vertebrae, with possible greater internal than external damage to the integrity of the spinal canal and the important nervous structures and vital centers of sensation, motion and visceral function which this neural bony conduit encases and protects.

Suppose lumbar puncture had been in vogue in surgery at the time of President Garfield's fatal wounding and employed in that remarkable case, *i. e.*, provided that President Garfield had had for his medical counsel a really advanced expert surgeon, at the beginning of his wounding, in full rapport with the present wonderful resources of

neurology and surgery in diagnosis? At it was, President Garfield had, at the commencement of that fatal case, the counsel of a medical politician, more noted for his political pull than his surgical skill, and famed chiefly as the advocate and promoter of the now exploded Condurango cancer cure, that was then working marvels like oil wells and some of the gold mines of the present day and other fakes in the newspapers.

Lumbar puncture for diagnostic purposes is a procedure for the later stages of suspected spinal injury, either of the meninges, the cord proper, or the bony canal, after giving the effused blood, which is likely to be small in quantity in the beginning, time to accumulate and stain the cerebro-spinal fluid. In estimating the value of this new lumbar puncture sign the same principles would apply to it as elsewhere, viz., the extent and degree of hemorrhagic discoloration. This sign might also prove useful as one element in the prognosis of the possible after effects to the cord; those sequences of concussion and molecular injury to the cord, which cause so much trouble to corporations and so much real, as well as litigation, distress to victims of spinal injury concussion and cerebro-psychic shock and cause the clashing of victim and company, of neurologist and surgeon in the courts.

#### LUMBAR PUNCTURE AND NEURO—OR CYTO-DIAGNOSIS GENERALLY.

The lumbar puncture needle promises to be of as much service to the near and new oncoming neurology and surgery as the ophthalmoscope, microscope or the reagents of chemistry have been and now are. Neuro-surgical diagnosis and prognosis are even now receiving new impetus from them in many directions. Recently before the Medical Society of the Paris Hospitals, many wonderful and valuable reports have been made of this method of cyto-diagnosis, beginning in October, 1900, with the reports of Widal and Sicard and Ravaut, his assistants, to whose work the *Philadelphia Medical Journal* refers

editorially with well-deserved commendation. Since the first communication of Widal a flood of reports confirming the value of this method of cyto-diagnosis have appeared in the literature of clinical neurology and general medicine. Monod, as this wide-awake periodical notes, last year, in Paris, examined the cerebro-spinal fluid of fifty nervous patients, finding leucocytosis in locomotor ataxia and general paralysis, finding nothing significant in alcoholism, hysteria, hemiplegia or neuritis. Chauffard, Boinet, Rabaud, (same source as above, viz., *Bulletins and Memoirs of the Medical Society of the Paris Hospitals* for last year) confirmed the findings of Widal and his assistants in tabes and general paralysis.

Many interesting showings were made by examinations of the fluid too lengthy for detail here, among them Nageottes' finding that in syphilitic meningo-myelitis mononuclear leucocytes predominating in the cerebro-spinal fluid, while in the non-specific cases the majority of the cellular elements are polynuclear. The cerebro-spinal fluid was found normal in hemiplegia, brain tumor, etc. In tubercular meningitis, lumbar puncture showed increasing lymphocytes and low osmic tension, while this cerebro-spinal fluid injected into rabbits caused tuberculosis.

Here is an important feature in which surgery may assure itself as to the state of the meninges after surgical operations and of the existence or nonexistence of tuberculosis, perhaps of the central nervous system, when spinal puncture is used for anesthesia.

The cerebro-spinal fluid after this operation should invariably be saved and microcytologically examined. The number of leucocytes should be examined and counted. Laubry (same source) reported a case of supposed tubercular meningitis disproved by this form of cytodiagnosis, where autopsy showed cerebellar tumor. This work is still going on actively in France. American surgery should take it up, and keep it up, until the new mine of diagnostic wealth shall have been worked out. In miner's parlance there is undoubtedly "rich pay dirt here," for clinical surgery as well as for neurology.

## IDIOTROPHIC AFFINITIES AND REACTIONS OF NEURONES.

The central neurones have their special nutritional or idiotrophic affinities appropriating what they need from the blood current for their nutrition, which means their growth, life and function and selecting their own peculiar manner of response to psychic, peripheral and toxic impression as we see in the phenomea of the reflexes of the brain and cord, the pupil reflex and the knee reflex for instance, the psycho-motor movements of a convulsion, the opisthotonos of spinal meningitis and tetanus, the tremors of sclerosis and paralysis agitans, the altered brain workings of convulsive tic, of trigeminal neuralgia, etc.

The physiology of the five or more senses is based on this peculiar reaction of central neurones to peripheral or central impression. They select their own special impressions of smell, taste, touch, sound, weight, etc. The knee kicks up, the foot jerks down, the chest expands, the gullet contracts downward, the bronchi and diaphragm contract so as to throw air and mucus upward, as in coughing, when their special centers are set into reflex action by peripheral excitation, so we also have the phenomena of fecal and urinary expulsion, peristalsis, etc., etc.

The irido or iris reflex is a true idio reflex. There is no other like it. It contracts to light and to certain drugs like eserin, and expands to darkness, atropin, cocain and other mydriatics. Idiotrophic means, strictly speaking, from its derivation (when applied to a neurone or group of neurones making a nerve center), a peculiarity of nutrition or selection of its nutrition. But we extend its signification. The selective affinities of certain centers of the brain or cord for anesthetic, motor or sensory impression or what has been called the selective affinities of drugs which are idiotrophies of the neurones, is a subject to thoroughly consider, and their psychic impressibility in surgical practice.

Barker, whose book is the bible of modern American neurology, as Nissl, Vangehuchten, Lenhossek, Cajal, and others are abroad, and, in fact, of the mundane neurology of our day, for in it are the sayings of the wisest and



best sages and apostles of our faith, concerning the doctrine of the neurones, following a well-merited defense of Johannes Müeller, who gave to neurologic science the "doctrine of the specific energies of nerves," says "it has been left for the neurone doctrine to explain, if it can, why it is that on stimulation of the retina or of the optic nerve, for example, the response always occurs in one and the same manner; no matter whether the stimulation be by normal methods or by mechanical or electrical means, the sensation of light or of color alone is yielded; or how it happens that when a cold point on the skin is stimulated, whether it be with ice, the prick of a sharp tooth pick, an electric current, or a piece of hot wire (cold point paradoxical reaction of von Frey), the sensation of cold always results. The constancy of the quality of the reaction, despite the variability in the form of the external stimulus, is one of the most puzzling of the phenomena with which the neurologist has to deal."

To me this does not seem so puzzling in view of the idiotrophic properties of the neurone as I here use the term. Though Barker still considers the question as obscure and refers to well-known pathologic cases in which direct irritation of certain areas of the cortex "has called forth definite sense perceptions, as evidence that these sense perceptions speak for direct relation of these bodies to the specific energies of the sensory nerves." The explanation is in that wonderful individuality of the neurone, to which I have already referred as the crowning cap sheaf cytological discovery of the nineteenth century making the name of Ramon y Cajal immortal. The idiotrophic property of the neurone unit explains why "odors, images of colored objects, memories of muscular movements, and of sounds have been experienced by individuals suffering from the pressure of cysts and other bodies upon the corresponding cortical sense areas," and why normal sensations reappear in nerve centers when limbs are removed, and why memories of impression, psychic or physical, persist. We need not subject the matter to the test of reason. It appears as an axiomatic truth of the new cytology, that the neurone



has this property, as the character and proof of its individuality as distinctive and individual as the selection of its own reconstruction, nutrition. As distinctive as its chromophile and achromatic properties.

## THE NUTRITION AND CONSERVATION OF THE NEURONES, OR NEURO—AND PSYCHO-NEURO- THERAPY IN SURGERY.

The popular misconception of the surgeon is that he is only a cutter. This misconception extends often to the surgeon himself, and it is not always confined to junior surgeons, who might be excused for knowing no better. In consequence, there sometimes develops in the surgical mind a flippant skeptical treatment of the resources of medicine, especially of the wonderful modern neurotherapy.

The popular misconception of the neurologist is that he is fitted to treat only nervousness and the neuroses of hypochondria, neurasthenia and the imagination, and to fool with a lot of chronic maladies of the cerebrospinal axis and peripheral nervous system, requiring more time and patience than the average surgeon has to devote to them. But I tell you as a medical man of once extensive surgical practice, that neurology and neuriatry are fundamental in medicine and surgical practice, and they cannot be longer ignored in either clinical medicine nor in the most possibly successful clinical surgery. It is the surgeon who treats the whole patient, neuriatrically and psychiatrically and otherwise therapeutically, up to the advancing modern standards, who will carry the greater trophies of recovery in his warrior belt as the conqueror of disease.

There is a psychic and neural and psycho-neural antiseptics, as well as, and no less valuable, as affecting prognosis, than the antiseptics of the vascular and absorbent systems, which have made Lister and many of his followers immortal and enabled modern surgery to invade and rescue victims of disease from the very grasp of death. Added to Listerism and the dauntless skill of its world applauded votaries in your illustrious ranks, comes now mod-

ern neuro-therapy that enables disease's prostrate and imprisoned victims to hold out through judicious cytological reinforcement, till the new and conquering surgery accomplishes its saving work and rebuilds and restores the assaulted central neurones.

### THE PSYCHIATRIC FACTOR IN SURGERY

Consists in conserving the integrity of the psycho neurones by withholding from the patient and avoiding both during and after the surgical operation, everything that may tend to lower mental or physical vitality. To this end blunt announcement of an operation intended and abrupt statement of possible doubtful prognosis, the needless display of the surgical tray and the prelude preparations and discussion of the intended procedure by nurses, except under the specific, detailed directions of the surgeon, should be avoided.\*

The employment of anesthesia in our day has saved patients intended for the operating table much psychic shock they did not escape in the past. If to this should be added the anesthetizing of the patient in a cheerful flower decked, gratefully odored room, without any appearances of the coming bloody ordeal, and the patient wheeled into the operating room while anesthetically unconscious, psychic conditions of restive recuperative central nerve tone would be enhanced.

### PSYCHICAL DEPRESSION AND THE NEUROPATHIC DIATHESIS.

As a sound neuro-surgical aphorism I should say, from the standpoint of a broad experience, avoid all sources of psychic depression and consider well the nervous system of

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\*The little surgeon who pompously displays his tray of Instruments before his trembling patient and to his woeful wondering mind decants upon the operation he is about to perform, and the chances of recovery, or displays a nonchalant unfeeling mien, acts unwisely and does not increase his patient's chances of getting well quickly.

And the great surgeon who takes his patient into the operating room and places him while conscious on the table, himself with instruments in hand, while white aproned attendants gather around the victim, approaching with sponge and bottle and instruments and appliances of the impending operative procedure, is not so wise a surgeon, and does not so fully consider the effect of depressing psychical influences as he who chloroforms the intended subject of an operation in another room or in the same room without these depressingly suggestive influences. —*Alienist and Neurologist*, Oct., 1896.

your patient before and after every operation. There are some constitutions so neuropathic and psychopathically predisposed that the shock of such an announcement would precipitate a crisis of mental alienation and it were better that the proposed operation should be abandoned than insisted upon under such circumstances, or that the patient should be gradually approached and prepared by cautious speech and suitable precursory reconstructive and tranquilizing neurological treatment. Many of the post-operative insanities and neuroses result from awakening into active life the psycho-neuropathic diatheses and might not result in neurotically well-prepared or psycho-neurotically well-endowed nervous organisms.

And these, gentlemen, are the victories of modern surgery: A skilled technic never before equaled. Anesthesia, general, peripheral and spinal; antisepsis, cytotherapy. And the honors are even, for anesthesia and cytotherapy are ours. Antisepsis and the new operative technic are yours. Fortunately for mankind these advances are all in the one family and that family is one for the weal of a suffering world.

#### POST-OPERATIVE INSANITY.

As a suitable addendum to this paper, let me here quote one of my editorial criticisms from the *Alienist and Neurologist* of October, 1901: A St. Louis surgeon having performed an enterorrhaphy with acute mania without sepsis as a sequel gives this as a rule which he declares has been adopted by most surgeons, viz: Under no circumstances ought any insane woman to be operated upon unless for some distinct condition that is compromising life.

This is not as a rule based on clinical knowledge, with those who have done their own surgery in a hospital for the insane or have advised surgical procedures on the insane. Psychiatry looks at the subject differently. A grave surgical disease preceding insanity or supervening a psychosis may be removed unless the proposal to operate and the preparation and operative procedure are in the line of and tend to aggravate the patient's delusions. Rules of

therapeutic procedure medical, moral or surgical in psychiatry are out of the range of the average surgeon's clinical experience and he should defer to psychiatric judgment in the premises and not formulate rules purely from the surgeon's standpoint. The practical alienist might enlighten surgery in some surgical quarters where surgeons walk in darkness and the darkness comprehendeth not.

I would like to ask if this is the rule adopted by most surgeons? If so it is not a wise one. Sources of physical drain and imitation should be removed, if practicable, from the insane and nervous as well as the sane and nervously well.

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## SIMULATION OF TABES DORSALIS.

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By PROF. V. KRAFFT-EBING.\*

### CASE I.

J., Marie, seamstress, 24, single, was admitted to the Clinic January 5th 1895.

Hereditary and acquired lues can be definitely excluded. The mother had simple constitutional migraine, the patient also since 13.

First menses at 16. After continuing for six months they were suppressed for a year.

At 15 the patient began to have paroxysmal cysto-spasm, as well as temporary relative incontinentia urinae et alvi.

Since puberty great excitability, emotionalism, often crying for no cause, globus in affect.

Since 16 patient noticed, that when she let the feet hang down so that the tips of the toes touched the floor, tremor of the legs (*trepidation spinale*) occurred, she also felt uncertain in walking, especially on a slippery floor.

In the 19th year (January 1890), during an attack of migraine and after intense excitement, patient noticed, when she tried to get out of bed, formication, tremor, weakness, inability to use the lower extremities. She then remained in bed 8 days owing to alleged paraplegia. Then she was able to walk again passably, but was weak, uncertain on her legs, knees giving way, tiring very quickly. Besides formication in the legs from the knees down. It was especially hard for her to walk in the dark room at night.

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\*English by Dr. W. Alfred McCorn.



After two months' electrical treatment the patient was able to walk without support, yet she often fell.

In July 1894, after excitement, marked impairment of the gait, *i. e.* increase of ataxia, amosthenia and on beginning to walk, stiffness in the hip and knee joints.

Since October 1894 patient noticed awkwardness in finer manipulations. She often dropped her needle when she looked aside; she must give her constant attention in walking and did not get on so quickly with her work.

For a short time slight pain in the upper vertebrae. Cessatio mensium since September 1894.

Walking has recently become so bad that the patient constantly stumbles over door-sills and furniture, so that she was covered with black and blue spots.

Condition January 7th 1895.

Patient of average strength, well nourished, without vegetative derangements. Cranium with transverse, saddle-like depression, circumference 54 cm.

Intention tremor of the bulbi in extreme lateral movement. The pupils react normally and present constant hippus. Slight concentric contraction of both visual fields, no dychromatopsia, slight ambyopia in the left eye, fundus normal. No other disorder of the cranial nerves.

No amosthenia, no rigor, trace of intention tremor in the upper extremities; in repose no tremor, no ataxia, not with eyes closed. Deep reflexes essentially exaggerated.

In the lower extremities more uncertain, reeling gait, often staggering to the right. Great static ataxia, increased to falling with eyes closed. Marked swaying while standing with eyes closed.

Gross muscular strength good, except slight amyosthenia in the muscles of the ankle.

Movements of locomotion as well as those in bed present ataxia in the lower extremities.

Rigor exists neither in passive or active movement. The deep reflexes are greatly exaggerated, even to foot clonus, the plantar reflex is active, cutaneous and deep sensibility intact, likewise in other parts of the body. The

whole vertebral column, sternum and lower half of the abdomen are very sensitive to pressure.

The static and locomotor disorders changed greatly during the following period of observation. Many days the patient presented more the picture of a tabes, others that of Friedreich's ataxia. She then staggered extremely, could not walk without watching the feet, not stand with feet together and then always fell to the right. In the recumbent or sitting posture, *e. g.* in tracing a geometrical figure, marked ataxia exists. Still the patient is able to execute jumping movements quite accurately. Many days with eyes closed the index fingers cannot be brought together.

On January 18th the patient completed her anamnestic statements by saying, that her trouble had arisen from disappointed love and that a coition much against her will has contributed. The memory of this violence is very active and combined with disgust.

After these communications corresponding to the adjustment of a long existing affect and under proper verbal suggestion, the ataxia disappeared on January 19th, and foot clonus was no longer to be elicited. The death of a sister on January 28th produced the ataxia again. Since then an unstable condition. At times the patient is left to herself, marked, especially static ataxia appears, but it may be overcome by proper verbal suggestion.

On February 15th 1895 rudimentary hysterical seizure (extensor spasm of the upper and lower extremities with slight clouding of consciousness).

Under gymnastics and verbal suggestion gradual disappearance of all motor disorders. Discharged recovered March 9th 1895.

A recent examination in August 1896 confirmed the absence of all objective symptoms. But the patient complains that she feels uncertain after walking for a long time.

## CASE II.

K., 31, helper, of an untainted family, was perfectly well until 21, when he first had variola and then diphtheria.

He drank wine moderately, was a heavy smoker, had been very excessive in venery, but had escaped venereal diseases, except gonnorrhea (1887).

In June 1889, when 26, patient had pains in both crural regions from no perceptible cause, which occurred at intervals of one to five days, lasting two days and, according to the description, was of a thoroughly lacerating character. During these attacks of pain retention of urine occurred, which rendered the employment of the catheter necessary. When free from pain the function of the bladder was normal.

Early in 1890 the gait became uncertain. He staggered, was often in danger of falling, no longer trusted himself to walk without a cane, very unsteady in going up stairs; these troubles were much greater in the dark. In July asthenopic symptoms appeared—the latter became blurred, indistinct in reading.

From October 3rd 1890 to March 5th 1891 the patient was in the hospital on account of a pleuritis.

The history at that time shows: right abducens paretic, double vision in the outer visual field, light reaction of the pupils sluggish.

An anaesthetic area in the middle of the forehead; right facial somewhat paretic, the tongue deviating to the left on protrusion. The spinous processes of the eleventh, twelfth dorsal and first lumbar vertebrae sensitive to pressure. Lightning-like twitching of the muscles of the thighs. The motor strength in the lower extremities reduced, right more than left.

Ataxia of the upper and lower extremities, markedly increased in the dark. Romberg's sign positive. On the external surface of the right calf below the knee a sharply defined anaesthetic area ten cm. long, five cm. broad. The muscle sense in the lower extremities extinct (sense of position absent, defective sensation of passive movement in all the joints). Patellar reflex very prompt; in testing the plantar reflex Westphal's paradoxical phenomenon occurs. Plantar reflex greatly exaggerated. Girdle sensation at the height of the epigastrium, gait on a broad base, reeling.

Under hospital treatment marked improvement in all these symptoms. The abducens paresis disappeared in February 1891. At the same time the facial asymmetry and the deviation of the tongue.

From 1891 to October 1894 patient was able to work some, yet the pains in the crural region returned now and then. Owing to their marked exacerbation patient came to the hospital again on December 13th 1894.

The last time, following excitement and alcoholic excess, patient was incapable of work, had become irritable, had head pressure, unsteady gait and feeling of numbness in the lower extremities on awaking.

Condition December 27th 1894: patient large, strong physique, well nourished with no pathological condition of the vegetative organs, free from traces of lues, presented negative condition of the cranial nerves, except hypaesthesia for all qualities in a circumscribed area of the skin on the forehead, which extended from the root of the nose to the hair and 0.5 cm. to the right of the median line and about 1. cm. to the left.

No pathological condition is found in the upper extremities. On the right side of the abdomen a small, on the left a large sharply defined basin-shaped spot is found, where the sensitiveness to all cutaneous irritation is significantly blunted. A like zone extends dorsally from the tenth dorsal vertebra to the middle of the sacrum.

Still in this area the perception of cold is retained. The spinal column is sensitive to pressure from the eleventh dorsal to the third lumbar vertebrae.

Patient stands on a broad base and sways as soon as it is lessened by bringing the legs together. In looking upward this swaying is markedly increased and with the eyes closed he threatens to fall. The gait is on a broad base, classical heel walk, stamping, shuffling, scarcely to be differentiated from the gait of an advanced tabetic.

The motor strength in the lower extremities is everywhere reduced, but especially in the area of the peroneal nerves, still the muscular tone is good.

In intention movements tremor appears, which is intensified in resistance by the physician, temporarily increased to clonism in the quadriceps cruris and gastronemii. Such clonism occurs in the lower extremities from any cutaneous irritation.

Rigor exists neither actively or passively, still in passive movement of the knees, active, if involuntary contractions in the extensors are met with.

The patellar reflex is exaggerated to clonus; in attempting to elicit the plantar reflex paradoxical contracture occurs.

At the height of the navel a girdle-like sense of constriction about ten cm. broad exists.

About every three days the patient has his attacks of lacerating pains in both crural nerves. In the intervals this area is sensitive to pressure. Trophic disorders, changes in electrical excitability do not exist.

The cutaneous and deep sensibility of the lower extremities is found to be intact, except hyperalgesia on the dorsum and planta pedis, as well as thermic hypaesthesia from the knees down to the toes, further the area on the external surface of the right calf above mentioned. This area about the size of the hand is tactically hypaesthetic. Within this geometrical figure is found a smaller area of analgesia. Here cold is everywhere sensed correctly, but warm nowhere, which yet is now and then perceived as "cold". Plantar reflex greatly exaggerated, abdominal and cremasteric reflexes normal. The functions of the bladder unimpaired, also at the time of the attacks of pain.

Cutaneous irritation of the hyperaesthetic foot area always produces maximal peroneous contracture.

Pressure on the peroneal nerve at the capitulum fibulae produces prompt contracture of the tibialis anticus on the left, which is then replaced by one of the extensor hallucis and other extensors of the toes.

On longer observation the clinical picture is complete in the way of paroxysmal globus, bilateral myodynia "(ovarian tenderness") in the hypogastrium, concentric contraction of the visual field, occasional ructus. The emotional-



ism, impressionability and the great instability of the patient's mood are conspicuous. Pharyngeal and palate reflexes became blunted during the course of the disease.

The supraorbital nerves, all those of the lower extremities are always very sensitive to pressure, now and then cramps in the calves occur.

Under baths (24-20° R.,) electricity, tonics, the motility significantly improved during the spring of 1895, the attacks of lacerating pains became more rare.

The examination May 19th 1895, shortly before the patient's discharge, revealed that the locomotor ataxia had disappeared, the gross muscular strength approximates the norm. The "static" ataxia remains conspicuous. Standing is possible only on a broad base and eyes open. With eyes closed, tremor, swaying and a tendency to fall backward occurs, yet the impression is gained that a good part of these phenomena are of psychical origin and the swaying may be essentially improved by suggestion. The hyperalgetic places on the feet have disappeared and with them the possibility of producing reflex contractures. The hypaesthetic places on the forehead, abdomen and right leg continue unchanged. Otherwise the sensibility is everywhere normal. The hysterical stigmata have disappeared.

On the patient's clinical presentation in January 1895 the diagnosis of hysteria was made, probably combined with alcoholic neuritis in the area of the crurals.

In spite of the great similarity of the disease type to tabes, this possibility, if only as a complication, must be denied, for the pupil reaction remained intact, the patellar reflexes were exaggerated, also the plantar. Likewise the marked remissions, the suggestive influence on the disordered motility, the intact muscle tone in spite of the many years' duration of the disease, the conspicuous brevity of the preataxic stage, exclusion of hereditary and acquired lues in the patient's previous history, the early onset of the disease at twenty-six.

All spoke for hysteria, especially the temporary hyperaesthesia of the feet, terminating sharply at the height of the ankles, the temporary diathese de contractur in the

hyperaesthetic area, the paradoxical contracture (Westphal), etc.

#### CASE III.

*Souques, etude des syndromes hysterique simulateurs*, Case 53, p. 133.

P., 37, ironer, admitted November 29th 1888, apparently no hereditary taint, delicate, sickly from childhood, left her husband, an inebriate, with whom she had lived unhappily, after she had been thrown in the water by him December 25th, 1878. Three months later progressive weakness of the lower extremities began. In 1880 lacerating pains appeared, likewise spinal irritation and conditions similar to gastric crises. Progressive impairment of the gait, uncertainty, paroxysmal giving way of the legs. After the pain crises, spots of cutaneous hypaesthesia frequent.

In 1889 weakness of vision, paroxysmal diplopia, difficult urination.

In 1890. For two years paraplegia of the lower extremities. Patient remained in bed. Varoquinus position. Gross muscular strength blunted more on the right than on the left. Deep reflexes exaggerated. In upper extremities amyosthenia, right more than left. Continuation of the attacks of lacerating pains, gastric crises, loss of the cutaneous and deep sensibility in the lower extremities, the deep in the upper. Cutaneous hypaesthesia over the rest of the body. Tenderness to pressure of the dorsal and lumbar vertebrae.

Pupil reaction normal, ophthalmoscopic condition negative, visual field not contracted, slight micromegalopsia. Bilateral amblyopia of 1/15. Homonymous diplopia of one m. distance. Slight detrusor weakness. General condition good. Vegetative organs normal. No syphilis. Pharyngeal anaesthesia. No convulsive seizures. Capricious, hysterical character.

#### CASE IV.

*Soques* (ibed, Case 54, p. 137).

P., 42, day laborer, no certain hereditary taint, irrelevant diseases, no lues. Following typhoid in 1890, par-

aplegia with attacks of lacerating pains in the lower extremities, also girdle pain and spinal irritation. Progressive seizures of hysteria gravis with hallucinatory delirium. After one of these retention of urine appeared. Patient was capricious, quarrelsome, went from hospital to hospital.

Condition August, 1890: gait more impaired, legs giving way, with body bent forward, short steps, ataxic, the feet crossing, falling with eyes closed. Attacks of pain, girdle pain and spinal irritation unchanged. Gross muscular strength greatly reduced in the upper and lower extremities. Deep reflexes normal. Retention of urine. Cutaneous anaesthesia for all qualities general, except three sensitive places on the right side of the face, pharyngeal anaesthesia. Hysterogenic zones over the right hip and spinal column (lumbo-dorsal region), concentric contraction of the visual field on both sides. Achromatopsia. Fundus normal. Pupils of medium size, reacting sluggishly to light and accommodation.

Ageusia, anosmia, hypacusia. No vegetative derangements.

#### CASE V.

*Souques* (ibed, Case 55).

A., 35, compositor, admitted in July, 1890, untainted, free from lues and alcoholism, healthy except swamp fever and typhoid many years ago, at the end of 1889 after intense excitement Basedow's disease appeared, became addicted to morphine, for three months has had lacerating pains in the lower extremities, girdle sensation and gastric crises.

On admission no ataxia, but uncertainty and swaying in turning. Romberg positive.

Patellar, triceps and plantar reflexes absent, also the pharyngeal. Fuzzy feeling under the feet. Painful, hyperæsthetic zones over the abdomen and spinal column. Otherwise cutaneous anæsthesia for all qualities general, anæsthesia or conjunctive and buccal cavity. Feeling of passive movement and sense of position everywhere extinct. Leg muscles sensitive to pressure. Anosmia, ageusia, hypacusia,

concentric contraction of the visual field, dyschromatopsia, except for green and red. Left amblyopia, monocular diplopia and micro-megalopsia. Möbius' symptom. Pronounced Basedow's disease. Great emotionalism and irritability.

#### CASE VI.

*Leval Piquechef* (Pseudotabes, These de Paris 1885).

O., 39, tailoress, admitted in May, 1885, tainted, emotional, afflicted with migraine. Onset four years ago with spinal irritation, lacerating girdle pain, weakness of the lower extremities, gastric crises. Later diplopia, amblyopia, vertigo. On admission: spinal irritation, lacerating pains, right patellar reflex blunted, pupils normal, swaying, uncertain, slightly ataxic gait, greatly impaired with eyes closed.

General retarded apperception of cutaneous irritation, slight analgesia, pharyngeal anæsthesia, formication in the fingers, deep sensibility intact, no sphincter troubles. Leval diagnosed tabes, Huchard hysteria. Rapid recovery under suggestion.

#### CASE VII.

Lecorchè and Talamon (*étude médicales*, 1881, p. 550).

M., 23, lady's maid, admitted in February, 1879. After intense excitement, pains in the epigastrium and right upper extremity, numbness in the right upper extremity, then besides formication and cramps in both lower extremities, girdle sensation about the abdomen and ataxia of the lower extremities.

Globus, emotionalism, laughing and crying for no cause, ovarian tenderness; pressure over the ovaries induced globus. Anaesthesia of the conjunctiva. Numbness, stiffness, awkwardness of the right hand. Shuffling ataxia of the lower extremities, indication of Romberg. Sensibility intact, also gross muscular strength and sphincters. Deep reflexes exaggerated. No lacerating pains.

#### CASE VIII.

Michaut (*Contribution à l'étude des manifestations de l'hystérie chez l'homme*, Thèse de Paris 1890.)

P., 33, merchant, of tainted family, no lues, no alcoholism. Onset two years ago with formication pedum, fuzzy feeling under the feet, swaying, uncertain gait. Progressive weakness of the legs, anaesthesia, loss of the sense of position, severe derangement of coordination.

On admission classical appearance of severe tabetic ataxia. Romberg positive.

Loss of the sense of position and of feeling of passive movement in the lower extremities. Knee jerks exaggerated. Complete anaesthesia of the lower extremities to the height of the knee terminating ring-like. From there up general hypaesthesia, especially algætic, except hyperaesthetic zones over the hips, the upper dorsal vertebra and beneath the left mamma. Pharyngeal of reflex wanting. Left hyposmia, keenness of vision blunted. No lacerating pains, no crises, no eye symptoms. Slight detrusor weakness. Patient was at first considered as tabetic.

#### CASE IX.

Pitres (*Archives de Neurologie*, May, 1888).

Man, 40, untainted, free from lues and alcoholism. In 1877 lacerating pains appeared, in 1880 girdle pain, uncertain gait, feeling of swelling in the feet, sexual excitement followed by frigidity. Romberg's symptom. Until 1886 bladder trouble, rectal tenesmus, gastric crises, clonic lacerating pains, locomotor ataxia. Deep reflexes retained, no eye symptoms. Diagnosis: tabes. Died of pleuritis. Autopsy showed posterior columns, posterior roots and peripheral nerves intact macroscopically and microscopically.

#### CASE X.

Higier (*Wiener klin. Wochenschrift* 1895. 1, 2, 3.)

R., 15, admitted October 17th, 1892, apparently untainted, had been ill a year ago in the same way for nine weeks.

For six weeks weakness, numbness of the legs, difficulty in standing, inability to walk (astasia and abasia) with crossing and knocking together of the legs in varoëquinus position. Romberg. In recumbent posture muscle strength good. All individual movements retained, some



ataxia. Retarded pain conduction. Plantar reflex retained, patellar wanting. Cranial nerves and upper extremities intact. Hypalgesia and thermic hypaesthesia in lower extremities, lacerating pains, girdle sensation at the height of the navel. Lowered and retained faradocutaneous sensibility. After a few days retarded sensation the trace of ataxia in the upper extremities. Sense of position in toes and ankles deranged.

Improvement from November 30th—disappearance of pains, ataxia, disordered sensibility, return of ability to walk. "Ovarian tenderness" duplex. Concentric contraction of the visual field. Discharged recovered January 17th 1893, yet patellar reflex absent.

Analogous cases by Pitres (Gaz. Med. de Paris, 1890, Sept. 20th, in a man) by Mader (Wien. Med. Presse 1885, p. 143, woman, diagnosis: myelitis, spontaneous recovery), by Grasset and Apollinaris (Gaz. hebdomad. 1878, No. 8) man, erroneously considered a tabetic by Raymond and Vulpian (Thèse de Michaut, Paris, of a man).

The following four cases have been published by me in the *Deutschen Archiv* for klinische Medicin IX., 1871, as cases of tabes cured or improved by galvanic treatment. I present them here, in part to correct my error at that time—it is a matter of hysterical cases, not tabetic, but certainly functional, in part to show the uncertain standpoint of diagnosis at that time, for Argyll Robertson's sign was not clear as to its significance, Westphal's unknown and the ophthalmoscope still unfamiliar.

All cases of tabes alleged to be cured deserve an analogous criticism, with respect to which Romberg's sad prognosis might only be too true.

#### CASE XI.

Mrs. F., 24, without hereditary predisposition to neuroses, delicate from childhood, menstruated at 16, dysmenorrhœic since her first pregnancy three years ago, was delivered the second time April 19th, 1868. About the eighth day of the puerperium, boring, gnawing pains in the lower extremities appeared, particularly in the right leg, which soon showed themselves in the right arm, neck and

back, disturbed the night's rest, disappeared after a few days, but returned every three to four weeks in like intensity. Annoying girdle sensations about the waist, formication and fussy feeling in the extremities were associated. The hands became weak, tremulous and somewhat uncertain. At times she saw things as through a thick veil, now and then the objects were double. For about six months locomotor disorders have been associated—the gait became uncertain, less persistent, she even stumbled on a level floor, complained of an annoying feeling of tension about the knees, swayed greatly in turning and was nearly unable to get about the house in the dark.

Condition May 13th, 1870: medium sized, graceful figure. In forced looking to the left and outward double vision occurred, in all other directions objects were seen singly. The left eye amblyopic and only able to count fingers. Spinous processes of the dorsal and lumbar vertebrae sensitive to pressure. The movements of the right upper extremity somewhat uncertain, of little persistency. Pain, temperature and tactile sense blunted on the right, with good localization, on the left motum as well as sensum normal.

The same differences with respect to the sensibility between the right and left are found in the lower extremities. While it is nearly normal on the left, analgesia and loss of tactile sense exist on the right to the middle of the foot; in the middle of the *planto pedis* analgesia is found, but tactile sensation and toward the heel pain and tactile sensations are perceived equally. Reflex movements are not excited from the right *planta pedis*, while they are normal on the left. On the right passive movements are not felt at the ankle, active movements are also difficult with eyes closed and are not distinctly conscious. The gait is on a broad base, clumsy, uncertain. Marked swaying occurs in standing and turning with the heels together. If the eyes are covered the patient threatens to fall at once. She soon tires in walking, but still can walk for a half hour. Unable to mount a chair unaided, going up stairs very fatiguing.

Exploration of the genitals revealed a negative condition. The patient, who at first took too warm baths and thus had felt more uncertain and weak, now receives thermal bath of 25° R. daily and was treated with stable spinal and labile spinal peroneal currents.

After a few days subjective improvement appeared. On May 22nd, after the seventh sitting, I found the gait steadier, more persistent; she could stand with eyes covered and take a few steps. Pain and tactile sense had returned everywhere in the right upper and lower extremities, but still greatly blunted, reflex not to be elicited from the sole of the right foot. The abducens paresis had disappeared without direct treatment, so that in accommodation for very near objects double vision no longer occurred. The amblyopia of the left eye improved so that the patient could read large print.

After 13 more sittings (June 13th) neither I nor Dr. Wilhelmi, who treated the patient with me, was able to perceive any symptoms of the former trouble. One day unknown to us the patient ascended a mountain 6,000 feet high without being especially fatigued, mounted chairs readily, walked perfectly steady with eyes covered and did not show the least derangement of coordination in her movements. Sensibility had returned to the norm. for all qualities on the right, the reflex excitability complete in the right leg. The recovery has remained perfect for fifteen months.

#### CASE XII.

Mr. J. Captain, 40, without hereditary predisposition, of strong physique, had undergone the hardships of the war with France, been frequently chilled and saturated on marches and in bivouac, and in the battle at Nuits on December 18th, 1870, received a severe wound in the left elbow. While in the invalid camp annoying insomnia and obstinate constipation occurred. When he could leave his bed in the middle of March, 1871, he noticed a fuzzy feeling in the lower extremities and the right hand, formication, uncertainty in walking and temporary twitching in several groups of the leg muscles with spinal reflex excit-

ability essentially exaggerated at the same time; so the patient was often greatly startled by slight cause. After a few weeks paresis of the detrusor urinae was associated with a paroxysmal annoying desire to urinate. The movements of the hands had become uncertain and tremulous two months before, fourteen days ago amblyopia and paroxysmal diplopia appeared.

Condition May 16th, 1871: left abducens paresis; both optical discs markedly suffused, the inner border of the left somewhat effaced. The right eye slightly amblyopic, the left markedly so. In looking at a distance diplopia now and then occurred, which is constant in accommodation for near objects. The double images disappear accordingly as the objects are pushed to the side of the affected eye, beyond the middle line the patient sees singly. Slight degree of ataxia in the hands, besides annoying sensations of fuzziness, without actual disorders of sensation being demonstrable. In the lower extremities, with retained muscular strength, pronounced disorders of coordination, gait on a broad base, uncertain with spring-halt, marked swaying in turning. Romberg's test negative, anomalies of sensibility are not demonstrable. Patient mounts a chair only with difficulty and marked swaying, tires quickly in walking. He always felt very fatigued and more uncertain after thermal baths of 29° R., given for a few days, therefore these were discontinued. I treated the patient with the strongest galvanic currents possible, stable, regardless of the current's direction, daily for five minutes over the spinal column, one electrode being applied as high in the neck as possible on account of the eye symptoms. This was combined with local galvanic stimulation of the paretic external rectus muscle. After the second sitting I found to my satisfaction and surprise gait and vision improved. Diplopia now only occurred in accommodation for very near objects and in forced looking to the left, also the double images about two to three feet away, before the sitting were always approximated after to one-half foot. After about five sittings the patient could read the finest print. But while the feeling of fuzziness, as well as the locomotor

disorders completely disappeared, a complete relief of paralysis of the eye muscles was in no way affected. As the patient had to be discharged on June 11th, after the twenty-first sitting, a slight degree of amblyopia and paresis of the external rectus existed in the left eye. The spinal reflex excitability was increased, the locomotor functions were perfectly normal. The same treatment was continued for four weeks by Dr. Maier at Karlsruhe, but without a further improvement in the eye trouble being attained. At the end of June uncertain gait again appeared temporarily. Patient now went to Switzerland for a vacation. I saw him again early in October, completely recovered, able to take the longest mountain tramps and for several weeks entirely free from the least traces of his abducens paresis.

#### CASE XIII.

Justine L., 26, single, without inherited predisposition to neuroses, formerly well, had a severe febrile disease about thirteen, from which she did not fully recover. During the two years following she had many hysterical troubles, spent the greater part of this time in bed and lost considerable strength from nervous vomiting. At about sixteen (damp, unhealthy residence as cause?) the present disease developed. She has a swaying, uncertain gait, can no longer walk in the dark and now and then has a mist before the eyes. The menses appeared at seventeen, without any change in the condition. In the years following a slow increase in the disorder of gait, frequent feeling of cold and numbness in the legs. From twenty to twenty-five the condition remained essentially unchanged. When obliged to she could walk on the street alone, but often fell. Ascending stairs was especially difficult. In walking she was often obliged to increase her pace. Improvement at a bathing resort in Baden (thirty-three tub-baths) in the summer of 1868.

Condition June 26th, 1869: strong, thick-set person well nourished. Except obstinate constipation, all vegetative functions unimpaired. Moderate degree of nystagmus of both bulbi, insufficiency of the left external rectus.



amblyopia of the left eye. Movements of the fingers betray a slight degree of ataxia. The gait is very uncertain; short steps, often forced to stand on the heels, cannot walk in a straight line, marked swaying in turning. With eyes covered the patient at once falls. Going up stairs very difficult, walking for half an hour possible, but very fatiguing. Sensibility in no way impaired. With continuation of the thermal baths, treatment by the galvanic current to the spinal column was tried. After a few sittings the patient was able to stand and take a few steps with eyes covered. The certainty and persistence in walking gained perceptibly. Every sitting marked a further improvement; the treatment had to be discontinued for a few days owing to the menses, when an exacerbation at once appeared. After thirty-two sittings the treatment had to be stopped. The eye derangements were a little improved, the locomotor troubles essentially. Patient could walk about the room with the eyes covered and from one-half to two hours on the street without being especially tired, mounted a chair readily and could go up and down stairs quite well.

On May 23rd, 1870, the patient came under treatment again. The improved condition had been maintained, except for a few variations; patient had been able to look after the most diverse household duties. No further improvement from twenty-five more sittings in the summer of 1870.

The winter of 1870-71 passed off well, patient could walk securely on icy ground. In May I found her in the same improved condition as when discharged; the gait was steady, maintained, only now and then she had no control over its tempo; swayed somewhat in turning with feet together and occasionally stood on the heels. Withdrawal of light by closing the eyes no longer had a deleterious effect on walking. The paraesthesia in the legs and the eye symptoms previously present had all disappeared. A further series of twenty-one sittings failed to relieve the last traces of the trouble, yet the patient on discharge was perfectly able to work and support herself.

## CASE XIV.

Leopold M., 26, butcher, formerly well, of regular mode of life, without hereditary predisposition, came under my treatment in July, 1871 for progressive disorders of movement in the lower extremities, which had appeared a year ago. As cause of the trouble was stated with great probability the extremely damp and unhealthy house the patient had heretofore lived in.

The trouble began with increasing uncertainty, feeling of weakness, formication, fuzziness and numbness in the legs, particularly the left. Lightening, boring pains in the lower extremities often occurred. The patient had often fallen in the dark, going upstairs and turning around became ever more difficult, walking so fatiguing and unsteady that he was obliged to remain in the house, where he walked about the room with a cane. When I saw him the first time in January 1871, he presented the picture of an advanced motor ataxia confined to the lower extremities, with extreme intensification of the disorder as soon as the eyes were closed. Bladder and rectum were intact, likewise there were no complications on the part of the cranial nerves. As treatment with the constant current was not practical, I advised cold frictions, by which a slight improvement was effected; nitrate of silver, of which the patient had received 5.2 grams during the last four months, effected no further improvement.

On July 26th the patient came to me again for "a final trial of electricity."

Patient is slender, of strong build, somewhat anemic. The ataxia is confined to the lower extremities, but marked; locomotion difficult, scarcely possible for five feet and only with a cane. Marked swaying at once occurs with eyes closed. The gait is slow, shuffling, patient is unable to keep on a straight line.

Feeling of annoying muscular tension in the calves as though the tendons were too short, occasionally lightening, boring pains in the sciatic nerves, particularly on a change in the weather; feeling of cold, fuzziness and formication. Tactile sensation is abolished over the whole distribution of

the external branch of the right peroneal nerve with pain sense retained; tactile and pain sense greatly blunted over the distribution of the external plantar nerve, the localization of impressions much deranged; the other sensory functions are intact. While reflex movements cannot be excited from the right planta pedis, the reflex excitability is decidedly increased on the left, so that cutaneous irritation of the sole of the left foot for half a minute produces clonic spasms in the leg. The individual movements in the lower extremities are unimpaired; there is no paresis, the full muscular strength is everywhere present.

The treatment consisted in the daily applications of the strongest possible constant current over the spinal column and in cathodal stimulation of the right peroneal nerve. A favorable effect in the way of greater certainty and persistency of the locomotor functions was to be recognized objectively after the fourth sitting. It was distinctly shown that the direction of the current was wholly indifferent for the curative effect. Until the beginning of September the patient was given the treatment stated daily, which he was compelled to give up, owing to family relations. The result of the treatment on discharge was as follows: the paraesthesia and anæsthesia have completely disappeared, the attacks of pain have not returned for four weeks. Patient no longer sways with eyes covered, walks about the room more steadily. The feeling of complete strength, certainty and persistency has returned to the legs. Walks of one-half hour's duration are possible and not fatiguing. Only on uneven floor and in going upstairs still shows a trace of uncertainty, but which is only noticeable to an experienced eye.

At the end of October inquiries elicited the information that the state of improvement bordering on recovery has been maintained, patient feels perfectly well and wholly able to resume his arduous business as butcher.

The confusion of the hysterical imitation of tabes with the genuine is hardly possible today, after thorough examination of the case. But that the present condition cannot always afford perfect certainty, is shown by a case of a

man reported by Petit, who for six years had had ataxia and other tabetic symptoms, was diagnosed tabes by six Parisian experts, yet one day while praying ardently at Lourdes, suddenly recovered. It must be admitted that hysteria may imitate almost all the functional derangements of tabes, even lacerating pains, paralysis of the eye muscles, bladder trouble, gastric crises and classical locomotor ataxia. But it has not presented optic atrophy, reflex pupil fixity, certain trophic disorders of tabes (arthropathies, decubitus, etc.). It seems to me improbable that it may present loss of the patellar reflex, although it must be admitted that it has been constated by eminent observers (Cases 5, 6, 10).

The possibility of an error or complication always exists in such cases.

As difficulties will only arise in diagnosis, when the anamnesis is not clear, the present condition will be decisive and the classical symptoms of tabes are not demonstrable at the time. Under all circumstances lacerating pains, gastric crises, vesical disorders and ataxia are insufficient for diagnosis.

The practitioner with little experience should never forget that locomotor ataxia is not equivalent to tabes. Whereas it is often wanting and polyneuritic ataxia (especially postdiphtheric and alcoholic) is often confused with the fatal spinal disease.

In doubtful cases the etiology is to be taken into account: An acute ataxia occurring after psychical trauma in a young woman points decidedly to hysterical pseudotabes. If the contest with regard to the luetic basis of tabes is still undecided, the exclusion of hereditary or acquired syphilis renders the assumption of tabes extremely questionable, by the positive proof of lues the suspicion of tabes is strengthened.

In a number of cases of hysterical pseudotabes the onset of the disease was acute. Genuine tabes is always insidious in its beginning.

If it is attempted to subject several of the symptoms common to tabes and hysteria to finer differentiation, the



regional anaesthesia is to be first considered. Oulmont (*Soc. de biologie* 1877, Feby. 17th) found it generally symmetrical in tabes, at certain places (cheeks, sternum, naval, ulnar region, fingers, knees, malleoli, heels, plantar surfaces, toes) and of irregular distribution, while the hysterical are represented by asymmetrical and geometrical figures. These statements are often met with, but further observations are needed to be able to offer diagnostic certainty.

That the paroxysms of pain in hysteria spare the ulnar region, as Souques finds, I cannot confirm by my own experience.

The dysuria in pseudotabes might always be due to sphincter spasm (the catheter is introduced with difficulty and held on withdrawal), while that of tabes depends on detrusor weakness.

The ataxia of hysteria is extremely changeable, very especially by psychical influence. This is true also of Romberg's symptom, in so far as it is not due to loss of the deep sensibility.

A symptom common to both diseases is the sudden failure of the legs, even to continued paralysis under certain circumstances. This symptom also needs comparative study. In hysteria it seems to me it is always to be regarded in the sense of a temporary astasia, while in tabes it represents a real or total insufficiency of the lower extremities.

With respect to the eye symptoms, in tabes it is a matter of the paralysis of isolated muscles due to nuclear or peripheral nerve affections, which may occur many times in the same eye, whereas the hysteria usually of associated paralysis or of simulation of paralysis by spasm of antagonists; the contraction of the visual field in the tabetic is more irregular, in hysteria strictly concentric. The achromatopsia in the latter is equivalent to the degree of contraction of the visual field and, as a consequence, the perception of red is retained the longest, while green and red blindness is one of the earliest symptoms of tabetic amaurosis.

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# OUTLINES OF PSYCHIATRY IN CLINICAL LECTURES.\*

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## LECTURE TWENTY-TWO.

Further as to supraquantivalent ideas—Theory of illusions—Their conformable content—Conformable content of false sensations generally.

WE had previously considered as the basis of the supraquantivalent idea the frequent repetition, possibly intentional practice of definite trains of thought, a process, which must be recognized as of the greatest influence in the education of an individual, for which of late the apt expression of preparing the way has been employed. This conception requires broadening in so far as the preparing the way, will in general go hand in hand with an affective coloring of the idea. Thus occupation is very especially suited to produce a supraquantivalence of certain ideas, but at the same time their affective color is expressed, in that momentarily the person's preponderating interest is turned to his occupation. We observed the remarkable fact that the susceptibility to certain definite perceptions is thus remarkably increased. To select the most pertinent example, any disorder or neglect on the part of the attendants is at once noticed by the experienced alienist on his rounds through the hospital, his attention and his interest is turned to it without a conscious effort being required; what we call discretion in any

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\*Continued from *Alienist and Neurologist*, Vol. xxxiii, No. 4.

†English by W. Alfred McCorn.

business affair has this foundation. Likewise the plastic artist considers the form, the tailor inspects the attire, the shoemaker the boots and unmarried girls notice the ring on the fingers of men. The increased excitability for certain sensory stimuli is shown to be dependent on the increased quantivalence of certain complex psychical processes. If under certain conditions an event of such common occurrence as *e. g.* the apple falls from the tree, has attracted the attention of a Newton, it is not an accident, but depends on the increased interest, which is due in part to certain ideas prevailing at the time, even in an event previously indifferent. It is similar with all inventions and discoveries, in so far as they are combined with daily observations. How partial this faculty for the reception of certain sensory impressions may be in the prevalence of certain ideas and their affective color is shown by the example of the mother, who in deep sleep is oblivious to every noise, except the least move on the part of her child. We will call this occurrence partial intrapsychical hypermetamorphosis. We may consider such an affective color and thus induced supraquantivalence of ideas the most common basis of illusions.

The theory of illusions is in great part based on the experience from the sense of sight, and the best known example is the interpretation of indistinct and vague visual impressions in a terrifying, fanciful manner, *e. g.* the distant tree stumps as robbers, the flapping washing as ghosts, etc. Evidently these are errors of judgment, *i. e.* clouding of judgment by affects like fear or anxiety. We purposely differentiate a distinct and an indistinct perception. The clouding of judgment in the latter case may so act, as in the examples of visual illusions cited, and the affect will have to be considered the cause of the illusions. But it is asked, by what process does the affect have this influence? As we have seen, we must ascribe to the affect the attribute of so changing the normal quantivalence of ideas that certain ones become supraquantivalent, others infraquantivalent in comparison. Supraquantivalent ideas have the attribute of being excited peripherally more

readily, the infraquantivalent more difficultly than normally. The supraquantivalence of the affective ideas of robbers and spirits then in our example pathologically facilitate secondary identification, the infraquantivalent interfere with the memory pictures in other senses or correcture in the same sense.

The affect may be of another nature or some association process of an individual sort may cause a supraquantivalence of ideas, which has exactly the same effect. I know of the instance of a young married man, who on a business trip to another city made the acquaintance of a lady and went with her to a place of amusement. It then occurred to him his wife had relatives here and that by a combination of improbable, but still possible conditions, she might suddenly conclude to visit the city and also come to the same resort. He inspected the company present and was soon so firmly convinced of recognizing his wife in a lady not far away, that he did not dare insure himself of its truth by going nearer, but decided to leave the place. I know of scarcely another example, which could so suitably illustrate the preparing influence of single affectively colored and thus supraquantivalent ideas for secondary identification in the normal person. If we think the affect increased only a little and the mental state thus clouded, and affective state, which we may assume in many recent cases brought to the Clinic against their will, a series of illusions thus become at once comprehensible, which we frequently encounter under these conditions. Related supraquantivalent ideas here are a separation from the relatives and the force used in bringing the patient. It is then not strange if relatives are believed to be recognized in persons at a distance and not distinctly seen, the State's attorney in the physician, a prison in the Clinic. Such illusions are frequently met with in many acute mental diseases. They are characterized in general by their instability and ready correcture. In very severe cases a certain confusion, an evident lack of attention may be added, so that the condition of an imperfect perception is replaced by a defective state of the sensorium. Then, so long as this

condition exists, numerous illusions occur, but all of which have in common that they change in content according to the ordinarily rapid change in the supraquantivalent ideas. Delirious states of the most diverse origin offer pertinent examples. It is not accident that the alcoholic deliriant believes he is among his companions, at the saloon or engaged in his daily occupation, thinks he recognizes in the physician his cabman or cronie: these illusions correspond to his supraquantivalent ideas. Under these conditions a good patriot considers the supervisor the Emperor, and if the delirium is of an anxious nature, executioner and State's attorney are illusioned. Inaccuracy of perceptions, which must favor the occurrence of illusions, will have to be accepted as existing so long as the patient is resigned and evidently in a dazed condition, so-called (*Dämmerzustand*). The same preliminary condition will lead to corresponding illusions in states of hysterical, epileptic or so-called exhaustion delirium.

The occurrence of illusions is harder to understand in apparently complete mental possession, attentive condition and sufficiently distinct perception. But in this case the content of the illusion is usually determined by certain effective ideas. Then ordinarily some exact sign may be ascertained, which the patient has utilized for his false identification. Thus it often occurs that an insane person considers the physician, attendant or some other patient a near relative, because he discovers some actual similarity, *e. g.* in the facial expression, the form, gait and sound of the voice. This mistaking of persons seems to be stable and is hard to correct. In a case of stabile mistaking of persons cited by Kahlbaum, on the same basis I presume, the illusion was so fixed that the patient failed to recognize his real relative and called him a swindler, an experience not so rare among insane after a long detention in the institution. It is certainly not an accident, but perhaps the longing for the relatives induced by the hospital detention, which is the cause of this misconception. Evidently the pathological process consists in concept of the relative, possibly the brother, being so supraquantivalent that the par-



tial identification of the actually similar tone of voice has the same effect as the blunted sensorium in the cases previously mentioned. Normally the difference in form, size, features and facial expression should prevent the identification.

Does not here exist, you will ask, a defect, a weakness of reproduction in those component ideas belonging to the concept of the brother, which relate to the form, size, cast of countenance and facial expression? A weakness of the cortical function according to Meynert, of criticism as Neumann calls it? This assumption is entirely superfluous, if you will call to mind the attributes of the supraquantivalent ideas above given. As we have seen in the case of hallucinations, the pathological supraquantivalence of ideas alone suffices to produce a process of identification, how much more must this be the case when an actual, if only partial primary identification aids in this inner process! Thus is shown the inner fixity of the once acquired concept, now become supraquantivalent: brother. Hence it can not be denied that under certain conditions this weakness of reproduction, even a paucity of concrete concepts for certain component ideas may be present in an insane person, as *e. g.* in paretics and senile dementes, who may declare straw to be gold owing to its yellow color, bits of glass diamonds from their hardness and transparency. But then this paucity of the concept may be demonstrable elsewhere and this is in no way the case in the previously mentioned acute insane. You see that in the conception of the illusions, at which we have arrived, the difference between distinct and indistinct sense perceptions, that first seemed so important and essential, loses its significance, just as the principal difference between illusion and hallucination disappears. The illusion now seems to us like hallucination, whose appearance is facilitated by incidental external conditions, a conception to which intelligent older authors, like Kahlbaum, had come long ago. We will surely admit this proposition only for the illusions of the insane and for descriptive, practical purposes hold strictly to the distinction between illusion and hallucination among



the patients of our Clinic. The same reflection will lead us to conclude theoretically no other position for the previously mentioned hallucinations of evident peripheral origin, *i. e.* in the sense organ, Kahlbaum's phenacisms, like the hallucinations from purely central cause. Such phenacisms play a great part especially in the matter of taste and smell, in that the bad taste from buccal catarrh, the bad odor from nasal catarrh is misinterpreted as poison. Here also, as we will see later, a supraquantivalent allopsychical idea of anxiety is the cardinal cause.

From the conditions mentioned it becomes in a certain measure comprehensible why in the frequency of hallucinations they conform to law, so that phonemes largely predominate and often exist alone. This is true particularly of many chronic mental diseases. In the acute it is often observed that at first only phenomes occur and the accession of hallucinations of other senses correspond to a recognizable aggravation of the symptoms to a certain intensity of disease. It is readily understood that in the close connection between ideation and sensorial speech fields a higher degree of irradiation of the stimulation is essential to radiate to the projection fields of the other senses, that is that which results in hallucinations or word sounds. I know that the opinion is common, particularly from the writings of Charcot and his pupils, that the process of thought takes place in an individually different manner, which far surpasses the measure of individual variations admitted by me, so that ostensibly many persons think only or largely in optical word pictures, others in acoustic, others again in the motor. Without contesting this, I suppose it is for very rare, exceptional cases and therefore not permissible to use it in the theory of hallucinations. That next in frequency phonemes, hallucinations of taste and smell are observed, in the acute mental diseases at least, is explained by the fact that it is here usually a matter of phenacisms and these naturally must occur more readily than the real hallucinations.

Now after I have evolved a definite theory for the false sensations of mental diseases, I am in position to

briefly discuss their conformity of content, as I have repeatedly stated, on the basis of a few examples. The law here concerned is, that the content of false sensations is determined by the prevailing affective state. The affective state and consequently supraquantivalent ideas are now the most excitable, and not only for the stimuli conducted from the sense organs, as we have previously seen, but also for the central pathological stimuli associated with the sejunction process. To begin with something familiar\* I refer to the occurrence of a hypochondriacal feeling of well being. Accordingly in such cases supraquantivalent ideas occur, which give expression to the feeling of well being, and the corresponding phonemes have the content of delusions of grandeur. A pathological euphoria we will become acquainted with in mania. If it here results in hallucinations, they are hallucinated ideas of grandeur. Inversely in melancholia the affect is one of profound dejection. Accordingly the content of the phonemes, if present, is usually that of micromania. The more frequent visions are in form of ideas of dejection. The psychosis of apprehension has been repeatedly mentioned in the paranoiac states. The affect of anxiety leads in full conformity to law to definite ideas of anxiety, which I differentiate as autopsychical, allopsychical and somatopsychical. Of these the autopsychical are in part identical with the micromania of the melancholic, then self-accusations or, if in a phonemes, accusations and insults. The allopsychical ideas of anxiety have the content of threats and derogation. Accordingly the patients hear they will be killed, tortured, burned, given to wild animals, driven out into the snow or naked through the streets, etc. It is due to somatopsychical ideas of anxiety, when a patient hears her globus interpreted by a voice to be a cancer of the larynx, a bronchial irritation a sure sign of consumption, cold extremities the approach of death.

The most common and general state of affect met with in recent cases is that of perplexity, produced by a certain moderate degree of disorientation. The most frequent content of the phonemes corresponds to it. The pa-

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\**Alienist and Neurologist*, See Vol. XXI, p. 314.

tient's assertions are highly characteristic: Where am I—what shall I do—what is the matter with me—I do not know anything, and similar disconnected exclamations are heard again and again. If the patients hear libelous names and insults, reproaches for imaginary misdeeds, hints of events that have never occurred, it is the result of autopsychical perplexity. It is often possible to conclude a posteriori such content of the patient's phonemes from their assertions and with perfect certainty, for they permit no other interpretation. I cite *e. g.* the following: I am no thief, I have poisoned no one, I have killed no children, etc. When the patient's identity is contested by the voices, it leads to assertions like *e. g.* my name is so and so. I am not a princess, am not married, have no children, these being evident reactions to the affect of autopsychical perplexity. Allopsychical perplexity is expressed in phonemes referring to the place and surroundings. The patients hear they are in prison, in heaven, in an enchanted castle, on a ship, etc., that the fellow patients are disguised and belong to the other sex, or disguised police, that the bed is not an ordinary one, the bath tub an instrument of torture, the food contains disgusting things or human flesh, etc. Phonemes like the following are produced by somatopsychical perplexity: that the rectum is grown up, the body full of feces or changed into a solid mass, the heart has stopped, the blood does not circulate, that the patients are paralyzed or dead, that the head is separated from the body or changed into an ape's, that the arms are pulled out or many times longer than formerly, or instead of two arms there are five, etc. Motor perplexity is very often clad in phonemes. This is the most evident when the patients hear perfectly contradictory commands, *e. g.* eat and do not eat. Also the command to take a certain position, to keep the tongue far protruded, to walk on all fours like an animal, are hallucinated assertions of motor perplexity, and also when the patients hear that they can not swallow, speak, touch the hand. Finally a great part of the so-called impulsive actions, but in reality caused by phonemes, have to be explained in this way. The patients hear the

command to escape, jump out of the window, throw themselves into the water, hang themselves, throw themselves on their head, pull out their tongue, mutilate the genitals, gouge out the eyes.

I limit myself to these examples, which I believe are sufficient evidence to show the dependence of the content of phonemes on the affects most frequent in acute mental diseases. I would only have to add, that in a certain respect the delusion of relativity depends on the affect state and refer as to this to my remarks in the thirteenth lecture. If these chiefly relate to the delusion of relativity in the baroniatic states, it is at once comprehensible that in the acute psychosis the delusion of relativity has a still greater affective color. It is especially the satisfaction of the demands of Nature in taking food, relieving the bowels and bladder, which in the acute psychoses cause the occurrence of phonemes with the content of the delusion of relativity, and especially frequent of disorientating phonemes, which are clad in the tone of voice of the person chiefly concerned, then of the attendants or physician. Taunts and twitting remarks naturally predominate, as *e. g.* : "now he eats again," or: "he can eat well, but not work."

It is very probable that not only the phonemes, but all hallucinations show the conformable dependence on the prevailing affect which we have become acquainted with in the phonemes. Still our experience greatly needs completion. It is the best known of visions that their content depends on the prevailing affect and that applies especially to melancholia and the psychosis of apprehension. Corresponding to the prevailing dejection corpses, coffins, uncanny black forms, funerals or in more fantastically colored cases the destruction of relatives by falling buildings, by flood, by railway accident, etc., are hallucinated; usually at least in more shadowy form with the support of this standpoint it is a matter of visions. That the visions of the ecstatic corresponding to their religious feeling of happiness, relate to heaven, and that it is here often more a matter of dream-like hallucinations than of visions, is readily comprehensible after what has been said.



## LECTURE TWENTY-THREE.

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Presentation of a Case of Psychosis with Apprehension. Form of the Disease, Course, Diagnosis, Prognosis, Treatment. Separation from the Neuroses with Apprehension. An Example of Psychosis with Hypochondriacal Apprehension.

The patient Sch., whom we have here, has objected to coming to the auditorium. He looks about anxiously, slowly comes nearer, but then greets me as an acquaintance. We have a man of 55, large, vigorous physique, in a state of lowered nutrition, with somewhat cyanotic color of the face and hands, cold extremities, anxious in manner and facial expression. A low moan is repeated rhythmically and now and then interrupts his talk, while he shows a great desire to speak. He looks grieved when I interrupt him to make explanations. He answers correctly my questions as to age, domestic relations, his home, business, but it is noticeable that his affects make it hard for him to concentrate himself, that he pauses, when he looks about vacantly, and that therefore the answer to simple questions, which otherwise is prompt, often requires a longer time. Patient repeatedly admits that it is hard for him to collect himself. The impression we gain of the affect controlling the patient is that of confusion, anxiety and perplexity. That these states of affect render difficult a coordinated train of thought has long been known and repeatedly demonstrated. On inquiry we learn that the patient complains of constant anxiety. Seat of the anxiety in his heart: "it will crush him". He can not breathe and therefore has not slept at night. Consequently he wishes me to examine him and prepares to undress in his anxious, hasty way. To the question why he is so anxious, he says the fear of being beheaded; he has also heard he shall count fifty daily, he is presumed to eat biscuits which have been in an expectoration cup of another patient. On inquiry we hear that the other patients, who are in the same room with



him, have made these assertions. The patient is well orientated and knows he is at the Clinic for insane. Still he does not thoroughly comprehend the present situation, so it might be that the patient has previously had somewhat limited conceptions, as we frequently find in the country people of this region. He recognizes me, recognizes the audience to be students and thinks I give them instruction, but still believes the gentlemen will all become preachers like his son, who is a student of theology and accompanied him to the Clinic. In the ward the patient has claimed they will cut off his head, he will be taken to the morgue where the corpses are. Besides it is not merely the fear of the threats which control the patient, we hear many complaints as to the fate of his family. He believes he has lost all he has; his son will be unable to study any longer. He has heard the voice of his little son say: "we have had nothing fit to eat for three weeks," the patient has also seen his son standing before him with supplicating gestures. Patient believes his family must die of hunger. The children are all sick, his son, the student, has been refused by a life insurance company owing to a heart trouble. He is to blame, he has ruined himself by an immoral life and secret sins in his youth. He has been too corrupt. He has also injured himself by chewing too much tobacco. Patient tells of an assault in which he recognized one of the assailants and has made a complaint. He then probably perjured himself, for it had been in the night and he could not have seen plainly enough. Formerly, when the anxiety was still greater, the patient had complained that both his younger children had been poisoned, had taken the life of his wife. At this time the patient, who has a hernia, had eaten poorly and claimed he had pains in his abdomen from eating.

Except the hernia no organic disease is to be found, he looks in no way older, but younger than he is. The patient has now been at the Clinic something over a month and sick for about three months before. The external cause of his disease was said to be that the patient, owner of a blacksmith shop and a farm adjoining, sold this

property and the shop to put himself at rest. Although the business was profitable and went smoothly, the patient gradually got the idea he had ruined his family and became poor. Anxiety, self-reproaches, which referred to the fancied perjury and the idea he is a great sinner and persecuted by Satan, were gradually associated. These ideas of autopsychical anxiety existed alone in the early part of the disease, and shortly before admission those of the fanciful menace were added, simultaneously such an aggravation of the anxious restlessness (anxious motor impulse) was noticeable that commitment of the patient to an insane hospital was unavoidable. Here the patient seems to have attained the crisis of his disease and now to have passed it. This is indicated by the subsidence of the ideas of somatopsychical anxiety. Besides a manifestation, the patient's rhythmical moaning, which is now only intimated, was much more pronounced in the early part of his sojourn and at times was increased to a monotonous repetition of one and the same phrase (I poor sinner). This was sometimes accompanied by rhythmical movements of the arms. The anxiety seems to have reached its highest point about this time. Nutrition was impaired only at the time the ideas of somatopsychical anxiety occurred, sleep must usually be induced by hypnotics. His weight fell from 78 kg. at the time of his admission to 72 kg., its present condition, while the amount of food taken has usually been sufficient.

With regard to the prognosis we are justified in calling it favorable on the basis of the course and other data. The course is seen to be of acute onset, then an exaggeration of the symptoms for a period of about a week, during which parakinetic and hyperkinetic symptoms in form of verbigeration and rhythmical movements of the arms occurred. This period corresponded to the height of the anxiety and the occurrence of ideas of somatopsychical anxiety. Since then the independent motor as well as the hypochondriacal symptoms have ceased and the anxiety lessened in intensity. Delusions of relativity and disorientating phonemes of corresponding content are not intense. Thus the intensity of the fundamental phenomenon, the anxiety, accords with the

extent of the symptoms; the disappearance of the symptoms is to be expected in similar order.\*

The form of disease described is typical of a large series of analogous cases, only a few slight deviations must be expected, which prevent the case from appearing perfectly pure. Perhaps it is a matter of the peculiarity of the individual, as I intimated. In general it can not be denied that the elementary symptom of anxiety affords the exclusive basis of a type of disease, which in many instances presents no other symptoms than those to be traced to the anxiety. We can put all these cases under the term *psychosis with apprehension*. The fundamental symptom is the anxiety, which is most often located in the breast, especially in the heart and epigastrium, next the in head, then in the whole body and always of a fluctuating character, intermitting at the onset or decline of the disease. This anxiety induces certain ideas, which therefore deserve the name of ideas of anxiety. They are so shaded that the ideas of autopsychical anxiety correspond to the lower intensity of the anxiety, the allopsychical and somatopsychical to the greater intensity. The somatopsychical may sometimes be absent or, as in this case, appear only at the time of the crisis of the disease. At the onset and the decline of the disease ideas of autopsychical anxiety are usually alone present. In many cases it consists wholly of ideas, far more often the ideas are clad in phonemes. At the height of the anxiety hallucinations of the other senses may occasionally occur and in certain very acute cases, as *e. g.* in the attacks of anxiety described of epileptics, combined hallucinations in all the senses. The condition is so frequent that usually only ideas of autopsychical anxiety of moderate intensity exist, or a combination of ideas of autopsychical and allopsychical anxiety, and phonemes only occur at times of increased anxiety. The allopsychical orientation is retained, the autopsychical usually altered permanently in the way of micro-mania. The perplexity may be extended to the allopsychical domain. Indications of delusions of relativity are often

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\*Three months after the demonstration the patient was actually well and has been so for two years.

met with at times of intense anxiety, disorientating phonemes of this content also occur. The content of the ideas of autopsychical anxiety and corresponding phonemes is solicitude about the relatives, the financial condition, injury to personal honor, micromania, self-accusations, consequently insulting phonemes. The content of the ideas of allopsychical anxiety is usually that of menace to life or honor, abuses, etc. The delusions of relativity behave in the same way. Of the hallucinations associated with especially intense affect, those of taste and smell are to be mentioned in particular, because they are usually regarded as the effects of poison and induce a temporary refusal of food.

Of etiological factors, alcoholism, epilepsy, the climacteric and senility seem to be closely related to the psychosis with apprehension.

With respect to the course of the psychosis, it may last from a week to several months. The shortest course is observed in abortive cases in epileptics and alcoholics. It sometimes happens that delirium tremens is replaced by an acute psychosis with apprehension of a very affective stamp with pronounced ideas of autopsychical anxiety. The psychosis is then of correspondingly short duration and accompanied by tremor and the symptoms on the part of the projection system to be discussed later. The psychosis with apprehension quite often occurs symptomatically, especially in heart defect with deranged compensation, when its course in point of time generally depends on this condition.

A real paranoiac stage does not generally occur, except consciousness of disease may be wanting for a long time.

The patient's motor state is generally determined purely psychologically by the affect of the content of the ideas of anxiety and hallucinations. The majority of patients can usually be treated in bed, still the exaggeration of the anxiety causes a certain motor restlessness, chiefly expressive movements of anxiety like crying, sobbing, wringing the hands, kneeling, praying, according to the individuality. In many cases tremor, grinding the teeth, pro-



fuse perspiration occur. If the anxiety is still further increased the patients get out of bed, walk about restlessly, try to get away. Motor manifestations not psychologically induced, or at least on the boundary of motor symptoms, are generally rhythmical moaning or swaying of the trunk, most often the two together, finally the monotonous, if not rhythmical, yet repeated movements of the hands, pulling at the bedding or clothing, rubbing the hands together, etc. The tendency to suicide is almost always pronounced, as well as the desire to die is often manifested in expressions like: "Put an end to me. Strike me dead." At the crisis of the disease the motor symptoms just described or those still more pronounced readily occur, particularly a parakinetic condition by rhythmical movements and verbigeneration. On the other hand a state of allopsychical disorientation and an exaggeration of the sensorial symptoms to fear of everyone and blind defense.

*Melancholia agitata* so-called deserves to be expressly mentioned as a special form of the psychosis with apprehension. Motor restlessness is constantly very pronounced, the movements are not wholly, if largely of psychological motive, they are in part, as above described, on the boundary of real motor disorder. But it is especially striking, that the increased production of ideas of anxiety may lead to impulsive talking and flight of ideas, symptoms, which we will meet later in an entirely different form of disease, but whose sensorial derivation here is not to be mistaken. It seems to be peculiar to these cases of agitated melancholia that the ideas of autopsychical anxiety predominate largely, if the allopsychical are never entirely absent.

*Diagnostically* it is to be first observed, that the disease often develops further and only forms the initial stage of a more complicated form of disease. This further development occurs in two ways, namely in form of a complex motor psychosis, usually characterized by the addition of akinetic symptoms, and in form of a more diffuse sensorial psychosis with disorientation. In the latter respect a suspicion must always arise, whether disorientating phonemes and delusions of relativity are more than incidental factors in the disease type.



The further development may be effected very quickly, so that the most acute forms of disease like those of the transitory psychoses so-called result.

For the diagnosis from affective melancholia the evidence of ideas of allopsychical anxiety or delusions of relativity is decisive. From acute hallucinosis the diagnosis is generally easy. The dominating symptoms of anxiety, according to the patient's statements, are objectively conspicuous, the frequently observed dependence of the phonemes on the variations in the anxiety, are most characteristic. But it is equally characteristic, that acute hallucinosis very early develops a paranoiac stage, which is not true of simple psychosis with apprehension. The retained allopsychical orientation distinguishes the simple psychosis with apprehension from delirium tremens tinged with fear. Likewise general sensorial psychoses are usually accompanied by disorientation. In many instances therefore the psychosis with apprehension is not to be differentiated from progressive paresis, because from the clinical standpoint the occurrence of a paretic psychosis with apprehension must be admitted. During the affect it is often hard to establish the disorder of memory, judgment and the ability to attend, almost always demonstrable in paresis, on the other hand the possibility exists that the symptoms in the projection system decisive for paresis—or alcoholism—are absent and first appear later in the course.

Cases of disease are very often met with, which may be called *borderland cases* or mixed cases of *psychosis with apprehension and affective melancholia*. They are characterized by the fact, that neither one or the other form of disease can be demonstrated pure or complete. From the external appearance the picture of affective melancholia usually predominates, especially because the fluctuations in the anxiety are less pronounced and a more continuous, stationary type of disease prevails. The subjective insufficiency of affective melancholia is often wanting, while pronounced micromania, self-accusations and other ideas of allopsychical anxiety are present. The prevailing affect is

that of misery, but also a localized anxiety. The manifestations of anxiety are usually limited to the simplest expressive movements, like those of crying, sporadic outbreaks of despair, while a motor restlessness is generally wanting. Ideas of allopsychical anxiety are almost always demonstrable, but they are sporadic, recede greatly in their importance and must often be sought for. Likewise, wholly sporadic delusions of relativity occur. The idea of misery prevailing among those of anxiety are often confined to a circumscribed group of ideas as in pure melancholia. The phonemes are subordinate factors.

Thus the quite frequent form of disease is sufficiently characterized in both ways. It seems to occur preferably in very young persons and in old age. The diagnosis is therefore not unimportant, because the prognosis of this disease is not only to be made with more certainty than in the psychosis with apprehension, but it is by far more favorable. The cases of the kind I have known have all terminated favorably.

The *prognosis* of the psychosis with apprehension is to be called favorable, for in by far the greater majority of the cases above described recovery has occurred. This favorable opinion is modified by the difficulty in making a certain diagnosis until a greater part of the course of the disease is past. When, as in the case presented, the crisis of the disease is past, it may be assumed with some certainty that a transformation of the disease into one more complicated will not occur, and in this expectation one is sometimes deceived, for after a stage of apparent convalescence, a further development of the psychosis into a progressive course may occur. So it is *e. g.* in a case of senile psychosis with apprehension in a woman of 73, whom I could present after a course of  $1\frac{1}{2}$  years, as a typical example of a chronic case with hypochondriacal delusions of persecution in the stage of allopsychical disorientation\*. In this case the form of disease was unfavorably colored by numerous disorientating phonemes and delusions of relativity.

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\*See case 1 in "*Krankenvorstellungen der Brestauer Psychiatr. Klinik*," Heft 1.

The *treatment* of the psychosis with apprehension has the special task of combating the symptom of anxiety. To simply bear intense anxiety for a long period can not be expected of any patient, just as little as the analogous symptoms of pain. In general extract of opium, in doses of  $\frac{1}{2}$  to 2 dcgr. subcutaneously, is a reliable remedy. Next a combination of hyoscyne with morphine, and of the first half of as many milligrams as centigrams of the latter, is of value. The dose may be daily increased from  $\frac{1}{4}$  mgr:  $\frac{1}{2}$  cgr. to  $\frac{1}{2}$  mgr. : 1 cgr. In the paroxysms of anxiety in epileptics, a hypnotic dose of amyl hydrate internally, or by clyster, is preferable. The further treatment of the psychosis with apprehension presents no other problems than that of psychosis in general, and therefore I refer you to my remarks on this subject at the conclusion of these lectures†.

No other province of mental disease has so many points in common with the functional neuroses as that which has just received our consideration. As frequent as the psychoses with apprehension are, it is incontestible that the states of anxiety, which come within the domain of the neuroses, are generally far more frequent. The question then arises: are there certain criteria for differentiating a *neurosis with apprehension* from a psychosis with the same affect? This question is of great practical importance, for with the psychosis with apprehension it is the physician's duty to assure the patient's safety by commitment to an insane hospital, even against the patient's will. Such interference with the personal liberty of a neighbor would by no means be tolerated in a mere neurosis. Fortunately the type of disease above described presents in its complex of symptoms such certain signs readily recognized, that the positive diagnosis of a psychosis with apprehension is easy and thus a doubt as to the correct method of procedure is obviated. Still unquestionably there are here, as everywhere in Nature, borderland cases, in which doubts as to the propriety of such a vigorous measure are justified. It will then be the phy-

†The reader finds examples of psychosis with apprehension in cases 3, 8, 9 and 12 in the first part and 5, 21, 22 and 23 in the second part of the "*Krankenvorstellungen aus der psychiatrischen Klinik in Breslau*," Breslau 1899.

sician's duty to provide for the greatest possible security and supervision of the patient in private. There is no better means for this than bed treatment, carried out strictly. But then, as above stated, the symptom of anxiety itself will have to be treated. The patient's welfare is always paramount to all other considerations and therefore the practical consequences, which the patient derives from his feeling of anxiety and the associated ideas of misery and anxiety on his action must be clearly kept in mind. Always remember that a single symptom, like anxiety, never suffices to diagnose a psychosis, but that on the other hand to the patient's actions equally as much value at least is always to be ascribed as to what he says. When suicidal attempts occur the patient's safety, by commitment to an insane hospital, is unconditionally demanded in these borderland cases.

I have begun the description of special disease types with the psychoses with apprehension, because on the one hand they are cases relatively easy to understand, on the other their points of contact with many other acute psychoses are so numerous, that they soon lead us into the midst of our practical problems. I scarcely need say that the practical knowledge of mental diseases has nothing to do with theoretical hypotheses. Therefore our method of demonstration will be essentially governed by the purpose of instruction and this subordinated to the practical requirements. The patient I now present belongs in this practical sense to the psychosis with apprehension, but, as will soon be seen, brings us to the subject of our next lecture.

The working woman L., 69, as is seen, a white haired woman, walking somewhat stooped with depressed slightly anxious facial expression and corresponding manner. She answers questions promptly, if in a somewhat feeble voice. She tells us her birthday, the date of her marriage, how long she was married, the date of her husband's death and his illness, gives the names of her children, tells us of her only living daughter and her marriage, speaks of her grandchildren. We learn from her all the prior history of her dis-



ease. In the spring of 1896 she became ill from a tumor in the body, which was then operated on. She then spent eleven weeks in the hospital, was very weak afterward, but well otherwise. In November she had the shingles and could sleep hardly at all for three weeks. Early in December the present trouble appeared. The time of her stay at the Clinic—since February 24th of this year—she states nearly correct, shows she is thoroughly orientated as to the purpose of the institution and her fellow patients, knows that the gentlemen present are students who visit the Clinic. I present her to speak of her disease. What is her disease? She can eat nothing because her throat is grown up or, as she corrects herself, only a very little passes through. The tongue has grown to the roof of the mouth. She feels with her hand and demonstrates that the upper surface of the tongue touches the roof of the mouth. Besides she constantly has the taste of pitch in her mouth and what she eats has no taste. What she swallows with difficulty she feels sticking in her throat. It accumulates in the stomach and causes a feeling of tension. Formerly defecation has not been possible, and now only occurs through artificial means and insufficiently. I ask if she is not somewhat better, but she replies in the negative. Still I must remark that the patient has actually improved. She was formerly so weak and infirm, that she replied in a very low, feeble voice and a demonstration like to-day would have been impossible. Owing to her feeling of severe illness she then did not speak of herself at all, while she does now occasionally, and took no part in what went on about her, while she now shows some interest. She then stated that her esophagus was completely grown up and had to be fed by force, while she now takes some food spontaneously. We have further learned from her daughter, that she previously complained that she could not get her breath.

What her disease is the patient is unable to say definitely, still it is something very bad, entirely hopeless. She has formerly said it is the pest and that she feared infecting others by contact. In this respect she has surely improved, for she does not think so now.



If we ask the patient how she likes her treatment here she replies: good, she is not worthy of it. What has she to reproach herself for? She is bad and sinful through and through, has tried to take her life, is a fright, a spectacle before persons and deserves to be thrown out. The other patients cry on her account. She has brought her sickness on herself by not eating, she has not treated her mother properly in her last illness. As a further sign of fanciful micromania I will still mention, that the patient refused to go into the reception room, because the other patients will not look at her, and has said, when preparations for photographing were being made, the photographer would be so shocked by her appearance that he would fall dead. Further the patient is convinced she cannot die; because she is too bad. She now expresses the desire to die and before her admission tried to strangle herself twice, because she could not bear it so. The patient believes her grandchildren are very sick, perhaps dead, and she formerly expressed the idea they would die on her account. As she then claimed to be to blame for all the misfortunes she heard of, *e. g.*, when an acquaintance burned his hand. She likewise expressed the fear she would not be admitted to any hospital, because she is too bad. Although the patient gives systematic information and presents no external signs of anxiety, she still admits on inquiry to have anxiety constantly. Where is the anxiety located? In the head. The anxiety is distinctly differentiated from the anxious feeling in the epigastrium, according to prior statements the anxiety was sometimes located in the breast. With respect to the patient's conduct on the ward, it is stated that she has always been affable and trusty. She has always been tidy and only occasionally disturbed; owing to her delusions she pulls at her anus or handles her excrement.

Other symptoms have not been found in the patient. Her delusions have always been confined to the pathological ideas described, to her body and her personality, and her conduct thus determined. With respect to the conception of the disease a review of its course is very instructive. It is unquestionably shown, that from the onset the present

hypochondriacal troubles existed and that they gradually led to the patient's extreme emaciation—her weight on admission was 31 kg., hence the necessity of her admission to the Clinic.

The other pathological ideas first appeared at a certain height of the disease, after the isolated hypochondriacal complaints had existed for weeks. A test of perception and attention showed a normal condition. The information we have gotten from the patient has always been given in concise answers to the questions asked her.

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## THE EROTOPATH IN SOCIETY.

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**E**ROTOMANIA has been well described, as it is seen displayed in the salons and corridors of hospitals for the insane, but it is not so well understood as it appears in the milder and less demonstrable phases of insanity in social life, without institutions for the restraint and treatment of the morbidly involved erotic powers.

A suggestion of the erotopath, (out of whose class in more or less extremely morbid form, the nymphomaniac and satyriac insane in our psychopathic hospitals are often evolved), comes into public prominence in the daily press. The newspapers, and even doctors, sometimes, are mystified and astounded at erotic revelations which have the semblance of startlingly immoral truth. In some of these instances it has been found that a morbid-minded woman, erotopathic, hysteropathic, or, it may be, cliteropathic, has made much real mischief in a community by conduct born of associated emotional erotopathy.

Sometimes the cause of the trouble grows out of grave, confirmed insanity with salacious illusion, hallucination and delusion.

Often, of course, erotic troubles have a rational basis, but we do not discuss this aspect of erotic family trouble. These mentally morbid unfortunates blast innocent lives, break pure hearts and blacken and ruin clean and good characters and fortunes. Some day the world will better understand them. Among them are certain morbidly-minded

jealous neuropaths to whose *erotically* and labidiously distorted minds,

“Trifles light as air are confirmations strong  
As proofs of Holy Writ.”

forming the basis for their psychopathic illusion and delusion. Included among them are also the non jealous, who from pure gynesiac hallucination and delusion make calumnious mischief for the innocent and virtuous and pure, worse than murder and most calamitous death. It were a great pity that these creatures were not more timely housed in a lunatic asylum or cliterodectomized. Their morbid erotopathic perceptions see great visions in the great smoke of a little fire or hallucination of unlawful love where there is not even the smoky basis of a vision. They dream in the day time, waking erotic dreams of clandestine *faux pas* and recount their dreams as verities, to the astonishment and horror of correct communities and set scandalous tongues, under control even of normal minds, to wagging, breeding, woe and misery of mind among the innocent and pure of heart and conduct. Thus the delusions of the insane often pass into the erroneous and false beliefs and unjust judgments of rational but mislead minds.

Woe betide the man, especially if he be a doctor in general or gynecological practice, who has the misfortune to become wedded to one of these morbid erotopaths, whose insanity is not marked enough to secure for him or her judicial commitment to an asylum. Pity also the physician with a large office practice among women, who may happen to have one such among his office patients who has developed morbid erotic yearnings after him and who insanely believes that not his moral sense and ethical obligations govern him, in his non-reciprocity of feeling, but his fondness for his other lady patients. These are the women to be especially wary of. He should, with prudent, timely caution get such patients into the hands of women physicians if he can, notwithstanding their usual aversion to their sex as doctors for women or into safe asylum treatment.

Aside from the fact that this form of insanity appears to occur more frequently among women of refinement in education and environment, of the wealthy, leisurely class, who have opportunity to give rein to impulse and passion without the restraining and steadying influences of compulsory daily occupation, that morbid egoism which is prominent in all insanity prompts them, like the envious, to seek out shining lights for their shafts of morbid, erotic suspicion. Mental disease in its erotic phases, as well as in its other forms, makes much mischief in the world. Its malice and suspicion, its mutual suicide compacts, its insane jealousies, its homosexualities and all of its many other diseased emotions and conceptions, have filled great volumes and made and unmade much of the world's marvelous history of pathologic love.

It is pitiful to see a normally pure, womanly mind transformed by erotopsyche disease into a demoniac creature of morbid distrust and suspicion, to whom all men and women among her most intimate acquaintances even have become impure. The psychic picture of these disease transformed creatures, is more commiserable than that of the good man gone wrong, the hopeless inebriate, for example, after a blow on the head or an attack of febrile delirium. But such is the ravage of mental disease. It digs deep among the neurones of the brain, undermines their integrity, removes the healthy inhibitions and brings into active mental life, through destructive cerebral disease, the latent and long suppressed aptitudes of generations long ago, impressions often unconsciously received or scarcely perceptible at the time of their reception by the mind.

The alienist and psychiatrist are often impressed with this in their clinical experience. Their first impressions made in the female wards of the psychopathic hospitals, of morbid woman's depravity of speech and manner, in cases of erotic disease perversion of the mind, are startlingly profound and enduring. But mental disease is a process of alteration, degradation, degeneration, tending to destruction and dissolution of the psychic neurones and the student of neurology and morbid mind does not misinterpret the true



ego of the natural individual by the appearances of disease deranged and changed mentality and consequent transformed personality. The female demoniac may have been in her normal mental estate a pattern of gentleness and purity of heart.

With the charity of true psychopathic science he covers the hideous mental distortions and wounds of these deformed and disease-changed minds with the shielding mantle of considerate pity. Some day the world will know these pitiable unfortunates as they really are, and pity too. Some of them suffer a world of woe and from some of them the world suffers woes unnumbered. The distorted visions, perverted emotions and deranged judgments, of an erotopath, physically diseased in the genito-mental sphere of her neural organisms, can raise the devil in a church, family or community. Gynesiatic-minded women have disturbed nations precipitated wars and caused destruction of peoples. But the political philosophers, historians or economists know little, as yet, of the true, inward, morbid, psychic perversion of the feminine erotopath.

There are probably enough nasty normal sins of morality in Chicago without a false, distorted, delusion perverted coloring of morbid mentality. There is no need of an erotopathic artist to paint the putrid picture of this aspect of our large cities. But there are also good people there, many more than there were in Sodom and Gomorrah, good and pure and true, as in all large cities, who need protection from calumnious pens and calumnious thoughts of morbid minds.

These disease distorted minds need to be shielded from the newspaper portraiture of the city's immoralities and vice. Newspapers judiciously and parsimoniously regulated as to details of immorality and crime, would, by withholding suggestions to the morbid minded, avert much of the startling mental disease displays which make up a large part of the moral disorders set forth in the press chronicles of current crime and debauchery.

The psychologist may see in the asylums for the insane examples of the cliteropathic mind, descended so low

in its estimate of mankind and womankind as to imagine all the world to be but a school of masked prostitution, and so disease degraded as to look upon virtue as only a name for clandestine immorality. But these creatures are out of their proper place, if mingling with the virtuous and moral. Their place is to be barred out from among the dwellings of the virtuous and pure of heart. They should be barred in behind the bars of a well supervised hospital for minds diseased. It is only thus that such diseased minds may be rightly ministered unto with due regard to the safety of society.

In this erotopathic phase of mind a morbid inner consciousness connected with the neurones of the psychogenital tract supplements and supplants the necessity of objective impression and sets disordered erotic perceptions and conceptions in action. Subjective hallucination, illusion and delusion take the place in such minds of external fact. The wrongly working neurones of the brain, disease perverted, conclude that the world outside is wrong and formulates its delusive impression into speech and action.

In the asylums, delusions of illicit, impossible intercourse between others and often times, with the erotopath herself, are gravely related as real occurrences, to the medical officer on his morning rounds and stories of startling sexual immoralities which are only baseless, delusional fictions conceived by the morbid mind of these erotopathic insane are detailed by speech and letters by these patients. These delusional fictions are often told outside the asylums by similarly morbid-minded, who do not always impress the community with their insanity.

While the writer pens this incomplete description, the imaginary marvellous love experience and disappointment of a male erotopath patient, not in an asylum for the insane, but who should be there, is still fresh in memory. This young man of not especially prepossessing appearance is distressed to the point of suggesting suicide, by the pursuit of the many women he meets on the streets, in the cars and everywhere, who make signs and gestures and ogling eyes of love and infatuation, which he interprets aright,

he thinks, though he has not the courage to act reciprocally and the infatuated creatures escape him.

No reasoning can convince him that his delusioned erotism is at fault. If I would only accompany him I could verify for myself the truth of his morbid statements on any street corner or street cars or other public place, he says.

He does not seek counsel nor treatment for this disease of the perceptive or reasoning areas of the brain, but for the nervous disturbance, the mental perturbation, disappointment and loss of sleep it has caused him. He is shattered by unrequited love and lost amorous opportunities. He details with imaginary precision how other men succeeded where he had failed to capture the numerous affections which would have been his, but for lack of courage to accept and act aright upon the erotic overtures of his many feminine admirers.

Such a man as this might make an Iliad of woes in refined society, if his erotic delusions were but centered around others than himself.

If a lady, strange to him, and at a distance from him, on a street corner, drops her handkerchief, it is for him to advance and pick it up. If she raises her parasol or gracefully lifts her skirt as she steps into her carriage or a street car, it is to attract his attention. The waving of her fan, the handling of her mouchoir, the gaze of her eyes as she casually looks at him, as one of many gentlemen on the street, or as her attention is attracted toward him by his peculiar appearance, are all especially designed, in his distracted fancy, for him. But the characteristic timidity and indecision of his sexual neurasthenia, (he confesses excessive masturbation) antagonize his morbid, egoistic, erotic impulse and he can not approach her as he knows she wishes him to. Every look and movement of the face, or body, are misinterpreted by him in egotistic erotic delusion.

One of my patients at the Fulton asylum for the insane, in the dodging period of the menopause, sought the embraces of any man who approached her, and through the bars of the corridor or of her room would importune the male employees without distinction even of color.

The love of some of these persons is single and platonic and above reproach, for the opposite sex, in others it is multifarious, promiscuous, lascivious and passionate. With some it is Lesbian. In some it is continuous, in others it is periodic, recurring with the monthly menses, and intensified with various states of the menses, with ovarian irritation and other disease of the uterine adnexa, and the menopause. But it is more often unassociated with appreciable uterine disease as uterine disease often exists without other psychic symptoms. I have known it to develop however, *pari passu*, with the growth of an ovarian tumor and in one instance to appear markedly manifest after the growth of an intra-neural uterine fibroid in a patient who had been previously exceedingly neuropathic. In this case the patient developed the delusion that her physician had caused her tumor by sexual congress with her under anæsthesia and hypnotism and had after that become a *roué* and abandoned libertine, forsaking her for many other women after her calamity, of which he was the author, without her knowledge. The erotopathy of this patient was one of other symptoms of mental disease. She had been markedly neuropathic before the appearance of the tumor and under a long time of treatment by the denounced physician.

In some of these neuropaths, dipsomania supplants the morbid erotism, the inebriety supplementing and obtruding the genesaic aberration. (I have known also a spree of alcoholic intoxicants to bring into active life a somewhat latent and judiciously suppressed homosexuality, to the chagrin and disgrace of a gentleman, who thus exposed his weakness.) The neuropathic diathesis here, as in other morbid states of mind, plays its prominent part. A previous attack of insanity in some other form predisposing to it. It in turn may be succeeded or accompanied by other forms of nervous disturbance with mental derangement. Here also the vicious neuropathic chain and circle appear, the victim being at times better in this and worse in other phases of neuropathy; well apparently elsewhere in the chain of nervous disorder and very bad here.

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## THE SUGGESTIVE TREATMENT OF HYSTERIA GRAVIS.\*

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By PROF. V. KRAFFT-EBING.†

THE relief of attacks of hysteria gravis often so annoying and presenting dangers for the patient and those about is one of the hardest tasks of medical art. The therapy confined to medicines (antispasmodics, tonics, narcotics) is very uncertain, if it is not to be denied that valerianate of zinc, the valerian preparations in general, but arsenic treatment especially, may somewhat contribute to the cure.

Inhalations of ethyl bromide, chloroform, energetic irritation applied to the individual spasmogenic zones, morphine injections are essentially palliative symptomatic procedures, therapeutically applicable to the individual attack, still not harmless owing to the danger of addiction to morphine.

Much more potent are hydrotherapy, psychotherapy and in form of isolation from the conditions in which the patient became ill, and positive—in the sense of purposive methodical medical psychagogy, where wake suggestions may play a prominent part.

But with all these aids it is often impossible to avert the fatal attacks, at best after long treatment amounting to months even, and relapses must always be kept in mind.

Whereas in numerous cases the results of a hypnotic treatment are surprising, particularly when it can be given under favorable conditions of an isolation from the family

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†English by Dr. W. A. McCorn, Long Island Home, Amityville, N. Y.



and the etiological influences. I have, like other observers, attained results in this way, which left nothing to be desired in way of rapidity and show these methods of treatment to be far superior to all others.

But it would be a great error to believe that this one method is suited to all cases and that the show cases, which the observer pleased with his success reports, would be the standard of the real worth and effect in such severe pathological conditions.

Beside such prizes many blanks appear and this cannot be otherwise, when it is considered how complicated are the conditions for success—sufficient susceptibility to hypnotism, superiority of exosuggestion to the patient's autosuggestions, which often seem almost insurmountable through stupidity, egotism, prejudice, etc.

Besides under certain circumstances there is a psychical obstacle—the masked psychical etiology of the case, by which its psychical analysis and thus the correct redaction of the suggestions to be imparted, suffer.

But when the psychical genesis of the case is clear, the effective psychical factors (painful experiences, ideas) are often so firmly rooted, that the ingenious methods devised by Freud and Breuer fail to eliminate them, also when it is impossible to bring the patient to state of more profound hypnosis (somnambulism).

Then often very annoying affects causing interference in the way of external occurrences incidentally damaging the disposition, or new manifestations of the disease inexhaustable in syndromes, are added to the result.

It is the worst when the hypnotic procedure is absolutely inert—the especially great and ever present susceptibility of hysterical patients to hypnotism is in no way met with according to my experience—when the physician necessarily sensitive, forfeits his prestige with the patient, or when in every attempt to hypnotize, the patient reacts by new attacks of his disease and shows himself very refractory to such hypnotic influence.

Such experiences have of late been the rule at my clinic. They may in part be ascribed to suggestions from

presumable authority asserting the worthlessness and even danger from hypnotic treatment, which is true in part of the Vienna public. In this respect at least a great difference exists between Vienna and Nancy.

In many cases it is impossible to succeed by change in the methods, but failure is the rule, and brilliant exceptional cases are needed not to lose sight of the value of hypnotic treatment.

The cases communicated below are well suited for this purpose. In both, severe hysterical convulsive disease is apparently relieved permanently in a short time and a few sittings.

That here hypnotic treatment was decisive, in the pathological conditions for the causation of the disease were eliminated and the patient's resistance strengthened, is shown with great certainty by these cases.

This hypnotic influence must be more esteemed, for the surroundings were not advantageous, as the neurological ward for men at the Vienna Psychiatric Clinic consisted of only one hall, where the patients were constantly going in and out, so that the quiet and isolation desirable for hypnotic treatment are not to be attained.

The following cases also show that milder grades of hypnosis suffice to effectually combat attacks of hysteria gravis, and that it essentially depends on the degree of the patient's suggestibility.

I would largely give preference to the method for the attainment of sleep by psychical means. The inspiration of a little chloroform (Wetterstrand) occasionally smooths the way (patients psychically excited, whose concentration is difficult to effect).

Case I. Mr. A., gardener, of a strongly tainted family. The mother's father died insane. The patient's father, also his brothers, are constitutionally neuropathic, two having hysteria gravis.

From childhood A was irritable, emotional, stuttered, ambitious. Globus always appeared in emotions.

In 1886, in Italy had intense emotion, in that he was not mentioned at a horticultural exhibition with the hoped

for prize and in that on June 19th he found his betrothed dead when he went to visit her, whom he believed to be in perfect health. He was in complete despair, attempted suicide; on December 2nd, 1886 had the first attack of hysteria gravis, which was soon followed by others. He was taken to the hospital, where right hemihypaesthesia and bilateral concentric contraction of the visual field were constated. Patient left the hospital on July 12th, recently had attacks (epileptoid phase, grands mouvements), remained nervous, irritable, emotional, depressed by trifles. In 1887 following an attack, contracture in the left upper and lower extremities for a month, which became more frequent after attacks, but of shorter duration.

Since 1888 the attacks recur every two-three months.

Right hemihypaesthesia, amyosthenia and concentric contraction of the visual field remain as permanent symptoms. In 1892 increases of the attacks after emotion.

Since January 12th, 1893 these became especially frequent and were followed by flexor contracture of the left upper extremity and extensor contracture of the left lower, continuing four days. Always after attacks occipital headache, great malaise.

In the intervals patient appeared terrified, emotional, complained of vertigo, pain and emptiness of the head. After an attack on January 18th, 1893 hysterical stuttering appeared.

Condition on admission to the Clinic February 3, 1893.

Patient 29, medium size, quite strong, pale, without disorders of sensation or the senses. No spasmogenic points discoverable. Amyosthenia in left upper and lower extremities, with dragging of the left leg in walking.

February 16th. Heretofore two-three attacks (epileptoid phase with arc de cercle) almost daily, beginning with headache, palor. Consciousness extinct. Duration three-five minutes. Occipital headache, greater stuttering, clouded vision in the left eye without contraction of the visual field always followed.

February 22nd. Hypnosis four times, easily attained by Bernheim's method supported by stroking the forehead,

yet is now extended to profound engourdissement. Patient is extremely suggestible.

The suggestions imparted were:

1. You will have no more emotion, must have full confidence in your recovery, which will occur in a few days.
2. Your convulsions will soon cease, for you are stronger than the disease and can control them.
3. Your left side is strong again, your speech unaffected (stroking the left side and the tongue).

Stuttering and amyosthenia disappeared after the first sitting. Patient perceived monitions of the former convulsions, but was able to readily suppress them. Patient felt well, left the hospital early in March 1893, remained well, capable of work, married at the end of 1894 and was perfectly well as long as under observation (December 1895).

Case II. Mr. E., jeweler, brother of the former, always neuropathic, had globus from emotion, convulsions when a child, became hysterical (left amyosthenia, partial hypaesthesia of the fourth and fifth fingers to the metacarpus) after radicle operation for double hernia (June 13th, 1894). After intense emotion August 15th, 1894 first attack of hysteria gravis (epileptoid phase and grands mouvements).

Since then severe left amyosthenia and left hemianesthesia.

Jacksonian attacks in form of left facial spasm and associated spasm of the left internal rectus and left external rectus, recurring at short intervals, always accompanied by violent headache and lasting about five minutes, occasionally passing to the left upper extremity.

The attacks of hysteria gravis occurred every two-three days, even to three times in one day.

As aura of these attacks violent headache, head drawn backward, then unconsciousness. The attack consisted of the epileptoid phase, then flexor contracture in the left upper extremity, extensor contracture in the left lower extremity; spasm of masseter, indication of arc de cercle. Duration rarely under five minutes. During the attack occasional clonic spasm of the jaw, now and then a periode de delire is added.



Admitted to the clinic August 21st, 1894, patient appeared of medium size, graceful, cranium normal, right testicle retained in inguinal canal. Left hemianaesthesia for all qualities, then left anosmia, ageusia, akousia, palate and pharyngeal reflexes wanting on the left, vision normal, no contraction of the visual field, left amyosthenia.

Patient is given the usual antihysterical treatment. The Jacksonian attacks disappeared at the end of September, the left hemianaesthesia is reduced to the area of the fourth and fifth fingers to the metacarpophalangeal joint, where it persists.

The attacks of hysteria gravis do not change and as usual treatment has proven of no effect and the patient has the greatest confidence in hypnotic therapy owing to its success with his brother, it was commenced on October 26th, 1894 under these favorable circumstances.

By simple verbal suggestion it was possible to put the patient in profound engourdissement. The sittings on February 26th and 28th confined to explaining to the patient that his trouble is identical with that of his recovered brother, and that there is no doubt of his recovery. He must combat emotions and have confidence in his future. The constant suggestion of sleeping an hour post-hypnotically is effected, but not punctually.

On October 29th two ordinary attacks.

30th. Hypnosis, suggestion to avoid emotion and suppress attacks.

November 1st. Unforeseen intense emotion; patient perceptibly struggled against impending attack, but it finally occurred, although extremely mild.

From October 30th to November 2nd four hypnoses. Patient is precise in the fulfillment of the sleep suggestion.

November 6th. As patient has no more attacks and was not presented at the Clinic, to-day in the fifth hypnosis suggestion to come to the auditorium on the 7th at 4:30 and to have a seizure there at 4:45. This will be mild and certainly the last.

November 7th. Patient punctually carried out the suggestion given. The seizure was extremely mild and short,



confined to the manifestation of the tonic portion of the epileptoid phase. On the 8th the sixth and last hypnosis with the declaration that the disease has disappeared and seizures can no longer occur.

November 17th. Perfectly well in the mean-time except mild cephalgia.

November 27th, 1894. Patient considers he is recovered. The residual anaesthesia of the left hand has disappeared.

December 18th, 1895. Well since and able to work.

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# THE EVOLUTION OF THE NEURAXIS:

NATURE'S BUILDING OF THE BRAIN AND SPINAL CORD.

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By CHARLES H. HUGHES, M. D.,

Dean of the Faculty and Professor of Neurology and Psychiatric Neurology,  
Barnes Medical College, St. Louis.

[ *A Lecture to the Juniors and Seniors.* \* ]

I AM not the first teacher in a medical school to make the observation that the study of anatomy and physiology of the brain, spinal cord, and connected nervous system is not generally pursued with that intensity of interest which its importance deserves, by the majority of medical students. Students of medicine seem inclined to ignore the minute study of the neuraxis, as many of them also seek to avoid as much as they can, the details of chemical and biological study, but the successful treatment of the nervous system demands of them a thorough knowledge of the exact relations between nervous function and structure in health for proper comparison with the changed nervous manifestations of disease. Beginning with the brain, that great English Corypheus of modern histological cerebro anatomy, Samuel Solly, who, following Tiedemann, the great German Vesalius of neuro-anatomy, in his day, sought to impress upon the medical world many years ago, when biology was yet young, the fact that the only philosophical method of simplifying and giving interest to the anatomy of the human brain, is by commencing with the structure and functions of a nervous system in the lowest and simplest forms of animal existence, and from this rise by degrees to the highest, carefully observing each addition or part and the relationship

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\*And chapter from forthcoming book of lectures by the author.

borne by these to an addition of function. "By pursuing this course we shall be rewarded by finding that the **enkepalon**," Solly said, "this apparently most complicated organ in the human being, is but a gradual development from an extremely simple fundamental type on one uniform and harmonious plan and that the seeming complexity of the cerebro-spinal axis in man really arises from the great concentration, as opposed to extreme diffusion of its component parts in the lower order of animals; for in no particular are the higher orders more strikingly distinguished from the lower than in concentration of function within circumscribed spaces." As we proceed in our studies we shall, by the aid of this early master cerebro-anatomist and the help of other and later eminent teachers, see how important it is to look below us in the animal scale in order to clearly comprehend man at the top.

The study of comparative embryology in this way has not only contributed largely to our knowledge of the cerebro-spinal axis, but the highest interest of embryology centers in the light which this study has thrown on the nature and evolution of the entire human nervous system, in which this chair as teacher, and you as learners, are so intently and specially interested.

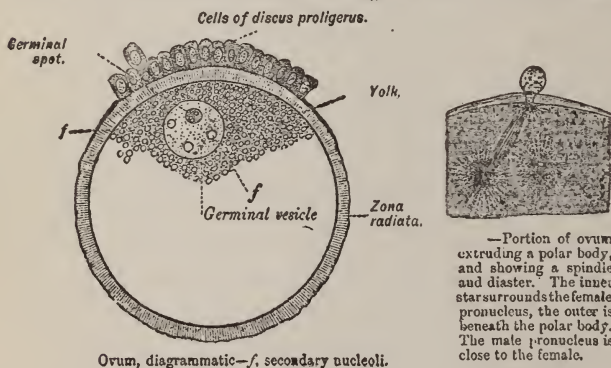
As the chief aim of your life will be to care for the brain, spinal cord and allied peripheral system, including the sympathetic and the organs of the body governed by and influencing this nervous system, it is proper that you should have, at least, an outline idea of its embryonic birth and development. By knowing something of its evolution you will be better qualified to delay or prevent that premature involution which morbid processes tend to bring about and may be, to delay the ordinary involution of age and promote longevity.

The human embryonic nervous system starts its life from a small beginning, a protoplasmic vesicle born of the union of an ovum and a spermatozoon. In the beginning a spot of protoplasm merging into a streak of epiblast called the medullary plate and developing first into an elongated neural tube larger at one end, (the an-

terior) than the other, from which are evolved the different antero-posterior segments of the brain described by neuro-anatomists, and from the lower end of this tube develops the spinal cord. Of man's origin as the poet has said of man's entire life, it may be said,—his time is but "a moment and a point his space."

FIG. 93.

### Human Ovum and Germinal Vesicle (after Macalister)

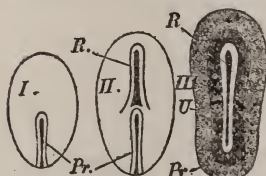


—Portion of ovum extruding a polar body, and showing a spindle and diaster. The inner stars surround the female pronucleus, the outer is beneath the polar body. The male pronucleus is close to the female.

### A PROTOPLASMIC VESICLE BORN OF AN OVUM AND A SPERMATOZOÖN.

FIG. 94.

### Primitive Streak and Medullary Groove (Macalister)



—I., Primitive streak; II., primitive streak and medullary groove; III., later stage with medullary groove alone; U., first protovertebra.

FIG. 95.

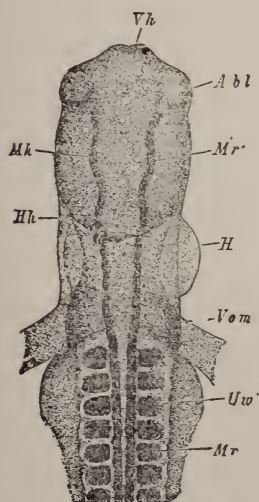


—The epiblast involuted to form the central nervous system while still a single layer, rabbit (after *His*). A round germ-cell lies between the proximal ends of two supporting cells. *Obersteiner*.

The accompanying diagram, much like one of Kollman of Jena, which I have taken from MacAlister's Anatomy, and the embryonic sections following it, will serve to show us how small and simple are the beginnings of neural life and to cause us to marvel at the mysteriously and wondrously wrought nervous mechanism of man and the lower vertebrata.

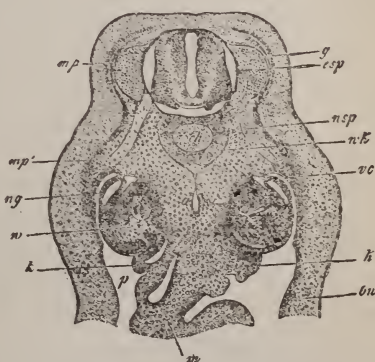
THE GERMINAL TUBE OF THE EMBRYONIC NEURAXIS.

FIG. 96.



—Diagram of anterior end of neural canal—*Abi*, optic vesicle; *H*, heart; *Mh*, wall of mid-brain; *Vom*, omphalo-mesenteric vein; *Uw*, protovertebra; *Mr*.

FIG. 97.



—Section of embryo, showing formation of vertebral body around the notochord—*esp*, spinal canal; *nsp*, spinal nerve; *zh*, body of vertebra forming around (*zh*) the notochord; *esp'*, muscle plate; *a*, aorta; *p*, coelom; *bu*, somatopleure.



The germinal embryonic tube of the neuraxis closes anteriorly in the process of development. It then swells first into the three and later into four and finally into five vesicular centers located one after or below the other. The first three divisions constitute the anterior, middle and posterior germinal cerebral vesicles. The anterior cerebral vesicle is then soon divided by the development of the falx cerebri growing out of what is called the secondary vesicle of the fore-brain, which is the beginning of the division of the anterior cerebrum into its two hemispheres. The falx cerebri being the product of the secondary vesicle of the fore-brain does not descend into and bisect the other vesicles in their evolution, but stops above the corpus callosum, basal ganglia and the other more posterior and lower or basal divisions of the brain.

The cerebrum and cortex, caudate and lenticular nuclei (these two latter being cortex formations) with the fornix and corpus callosum, are developed from the secondary anterior cerebral vesicle. This forms the anterior or fore-brain, prosencephalon or telencephalon as it is variously termed.

The primary cerebral vesicle (Vh) makes the tween-brain including the optic thalami and commissure, corpora albicantia and infundibulum. The secondary vesicle having evolved out of the primary cerebral vesicle.

The mid-brain (and this is an unfortunately confusing term as distinguished from the tween-brain) is formed from the middle vesicle (Mh) and includes the corpora quadrigemina and peduncles or crura or legs of the cerebrum. Mid and tween are so near alike in meaning that it might have been well to have included the near enough related parts which make up these two divisions under one common designation viz., the quadrigeminal bodies and crura. The fewer and simpler these divisions the better, but as I did not make them I make no further apologies.

The mid brain Hh., is made up of the cerebellum its peduncles and the pons Varolii. It is developed from the anterior of the two under or lower vesicles, Hh. Last of all comes the after brain and this is an ill chosen designa-

tion to distinguish it from the hind brain, hind and after being so nearly synonymous. But it is the language of neuraxis embryological evolution and we must accept it as faithful followers of the Masters. Fortunately its meaning is easy to remember. The after brain is made up of the medulla oblongata alone and is developed from the posterior (Nh,) of the two under germinal cerebral vesicles.

Brain structures are also divided into brain mantle and brain stem or caudex. All structures developed from the secondary vesicle are included in the brain mantle. The structures formed from the remaining vesicles, excluding the cerebellum, constitute the brain stem or caudex. The mantle or cortex structure of the brain envelops the most of the surface of its three primary vesicles after they have evolved into brain structures. Mantle and cortex meaning respectively covering and rind, the latter the same thing only more closely fitting.

The germinal vesicle cavities evolve into ventricles and aqueducts or canals. Thus, that of the cavities of the secondary forebrain evolves into the lateral ventricles, that of the primary forebrain (Vh) before division and the hind brain respectively, furnish the third and fourth ventricles and spinal canal, while the mid-brain germinal vesicle cavity makes the aqueduct of Sylvius which connects these ventricles. Lower down the germinal tube in the diagram (Mr) is the cavity of the central canal. The vesicle cavities become the permanent brain ventricles and the foramen of Monroe.

FIG. 98.



—Vertical longitudinal section of brain of human embryo of fourteen weeks. 1 x 3. (After Sharpey and Reichert.) c, cerebral hemisphere; cc, corpus callosum beginning to pass back; f, foramen of Munro; p, membrane over third ventricle and the pineal body; th, thalamus; 3, third ventricle; i, olfactory bulb; cc, corpora quadrigemina; cr, crura cerebri, and above them, aqueduct of Sylvius, still wide; c', cerebellum, and below it the fourth ventricle; pv, pons Varoli; m, medulla oblongata.

The frogs of the bogs, the crocodiles of the Nile and alligators of the Mississippi, the codfish and whales of the sea, the giants and dwarfs of the jungles and forests, the lizards and toads and reptiles of the fields and the fowls of the air as well as those anthropoid apes which make Darwin's connecting link in animated nature with man, have helped us to know our brain and other portions of our neuraxis.

Man's nervous system begins also with the outer of the three vesicle layers of the primitive embryo viz.—in the epiblast as we have said, which gives origin to the nervous system along with the intimately connected epidermis, with its hair, nails and glands and the mucous membranes of mouth, pharynx, anus and the perceptive surfaces of the special sense organs. This is also called the neuroblast, *νευρον*, a nerve and *βλαστος*, a bud, because the neuroblast is the bud of and evolves into the nervous system.

The mesoblast is also important as it gives rise to the neuroglia, the derma and connecting tissues generally, the serous and mucous wall linings of the bodies, cavities and vascular system, the non nervous internal genital system, the muscles, bones and bodily excretory organs. And we note here that a division begins with the very beginning of organic life. The germinal vesicles are assigned specialties of work in the animal economy from the start and the evolved organs keep up the work to the finish of existence. The mesoblast is the middle and the hypoblast the innermost layer of the primitive embryonic growth.

Von Mihalkovics has given to embryological science a microscopic section of the brain and medulla of a chicken four and a half days old, which Edinger and other delineators of the embryonic central nervous system have reproduced. It shows the five brain vesicles fairly well developed, so well by comparison with the much further advanced human foetus, as for example that of His at about four weeks,\* that it may be preferably used for our instruction today.

Look on this embryo chick and upon the other illustration and delineations of man's evolution in the department of embryology and note how man is inexorably

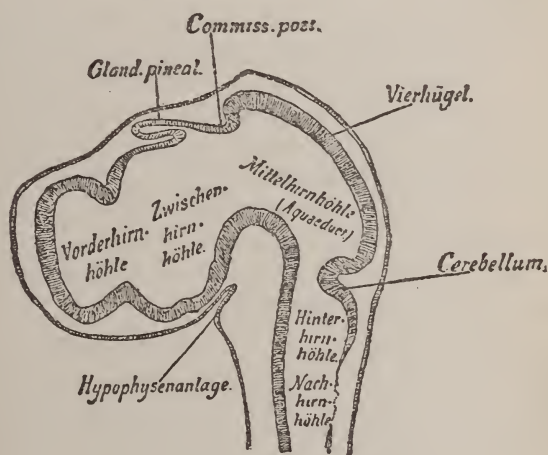
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\*See Duane's Dictionary, Plate iv.

chained to nature in his evolution and environment, and realize how important it is for you to keep close to the revelations of nature in your study and work and give heed unto her instruction. She speaks a forceful and unerring, though silent language for your guidance.

FIG. 99.

# Mihalkovic's Diagram of Neuraxis Evolution and Brain Regions.



Longitudinal section through the head of an embryo chick of 4½ days. The five brain-vesicles are pretty clearly marked. In the roof of the inter-brain is a fold which later on becomes the pineal gland. The epithelium of the pharynx is being pushed up toward the base of the brain, and is the first rudiment of a portion of the hypophysis. (After Mihalkovics.)

*Hinterhirnhöhle*, Hind-brain cavity.

*Hypophysenanlage*, Rudiment of hypophysis.

*Mittelhirnhöhle* (aqueduct), Mid-brain cavity.

*Zwischenhirnhöhle*, Inter-brain cavity.

*Nachhirnhöhle*, After-brain cavity.

*Vierhügel*, Corpora quadrigemina.

*Vorderhirnhöhle*, Fore-brain cavity.

(Edinæer)

The prolongation of the spinal cord within the cranial cavity, though classed with the brain, is called the medulla oblongata. It is distinguished from the cord below by its form and by the arrangement of its gray and white matter. Its form and relations give it its name, oblong medulla. The gray substance of the cord on each side expands into



anterior and posterior horns, but recedes backward in the medulla oblongata and expands into a continuous layer posteriorly. The posterior columns of the spinal cord at the top of the cord are made up of white matter and diverge into an acute angle forming the restiform bodies and making postero-lateral walls for the fourth ventricle located between them. The restiform bodies continue into and become a part of the inferior peduncles of the cerebellum.

In front, the medulla has two longitudinal elevations of white matter on each side of the median line. These are the anterior pyramids which are continuations of and bulbus-like enlargements of the anterior columns of the cord. At their lower portions they exhibit a decussation or crossing formed by oblique bundles or fibers crossing the median line from below upward to opposite sides. The right anterior pyramid fibers come from the left side of the cord and the left anterior pyramid fibers cross over from the right side of the cord. This arrangement forms the often spoken of and written about pyramidal decussation in the motor tract or pyramidal tract of the cord.

Immediately outside each pyramid and almost adjoining it on either side is the elongated olive shaped olivary body called the corpus olivaria, consisting externally of white substance, but internally of a thin convoluted layer of gray matter, resembling in miniature the convolution of a hemisphere. They are centers of gray substance in the medulla oblongata, super-added to the rest, and not continuous with that of the spinal cord. They have an individuality and separate, though joined, existence, to the cord, like a neurone of the brain cortex.

At the upper limit of the medulla oblongata is the tuber annulare, so called because it forms a ring-like protuberance at the base of the brain, also called the pons Varolii because it bridges over the crura cerebri and named after Varolius, who discovered it. Superficially it consists of transverse bundles of fibers passing over, in an arched form, from one side to another of the cerebellum. Strictly speaking it is only fibers of the tuber annulare that con-



stitute the "pons Varolii," but the entire tuber annulare is most frequently designated as the pons.

This life in the human organism, as in all other animal life, begins with the protoplasmic cells. The neurone, with its appurtenances, the neuraxone, axone, neurite or axis cylinder process and its dendritic proliferations, is the unit of human anatomy. These cells perverted in structure and function are the foundation of pathology, the cellular pathology of the great Virchow. These cells undergo multiplication and obscure complex transformation whose precise manner of change and aggregation into organism is as yet somewhat beyond the ken of science. We will not inquire more minutely into the peculiarities of individual cell development, though with all of its obscurity, it is an interesting phase of cytology. Hence we begin our description today with the initial organic beginnings of life, viz.: the blended ovum and spermatic vesicle, and from all that we have seen or may see from our glimpses thus far of cytology and embryology, we have derived instructive confirmation of the old maxim, *omne vivum ex ovo*.

The teachings of Nature do not confirm the fiat of spontaneous generation.

There was once upon a time a divinity student examined on the subject of creation and, when he was asked the question, *quid est creare?* he answered, *ex nihilo facere*. To this the inquisitive Professor responded, *ergo te doctorem faciamus*. This was nearer to spontaneous generation than science carries us and a medical doctor could not be made that way. He was a divinity student.

From this consideration of man's origin embryologically we may be prompted to ask with the poet, "Why should the spirit of mortal be proud?" for he begins in a spot and a streak, a primitive streak and a medullary groove; "his time a moment, and a point his space."

His life begins in a microscopic germinal nucleus or vesicle, this nucleus consisting of a homogeneous membrane enclosing a network of protoplasm called nucleoplasm and this nucleoplasm is itself made up of infinitesimal protoplasmic threads or filaments of exceedingly complex or-

ganism whose composition consists of many thousands of molecules, computed at near half a million.

Here is a drawing of the human ovum and germinal vesicle from Macalister's Anatomy. (See first and second illustrations in this chapter.)

Two faint ridges called medullary folds (*laminæ dorsales*) appear in front of the primitive groove, on each side of the middle line. The furrow between them is called the medullary groove (*R*), and is floored by a streak of epiblast called the medullary plate. The medullary folds unite in front of the medullary plate, at the anterior end of the embryonic area and, as in the course of growth they gradually extend backwards, they push the primitive groove to the hinder end of the area, where it finally disappears (*III*).

Coincidentally with the formation of the primitive groove, an intermediate series of embryonic cells appears between the epiblast and the hypoblast.

The embryo (Figs. 96 and 97) is composed of thirty or forty segments, which begin to appear shortly after embryonic life commences. The metameres or somites are ventral and dorsal. Each ventral metamere unites in the process of development with another ventral metamere or embryonic segment to form the cavities. The dorsal metameres unite with each other to form the other parts, viz.: the myotomes or muscle segments, the sclerotomes, or bone segments and other hard tissues, and neurotomes or nerve segments, etc.

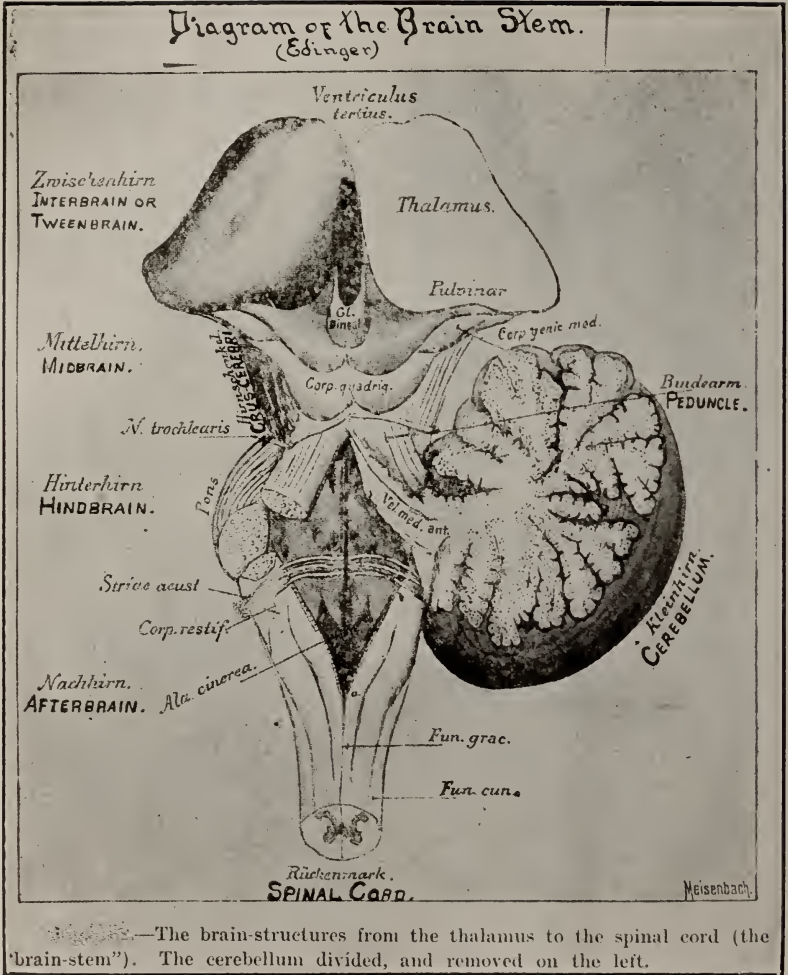
The segmentation of the germinal tube may be seen forming into metameres (commencing metamerism) and these metameres beginning to form myotome, sclerotome and neurotome in Figs. 96 and 97.

An outline of the five primitive vesicles appears in Fig. 96, and the metameres are seen in process of evolution.

The notochord, *esp* in Fig. 97, (*νωτος*, the back, plus *χορδή*, string,) is the chordæ spinalis, or primitive back-bone—a fibro-cellular or cartilaginous rod-like structure which is later developed into vertebræ, as the basis of the future spinal column and about which the bodies of the future vertebræ are formed. It is one of the earliest em-



FIG. 100.



Practically the brain mantle is all of the brain above this.

bryonic structures and persists throughout life in many of the vertebrates, which are on this account called notochordal. It is the embryonic canal developed from the cells of the mesoblast lying in close proximity, in the illustration, to the later evolved spinal cord.

It is later on in the process of embryonic development, absorbed and replaced by spinal column which in man is always bony, though in some of the lower animal species it is cartilaginous. The soft pulpy substance which fills the cupped ends of the fishes' vertebræ is notochord remnant."

*[This subject will be continued in subsequent lectures and in the author's forthcoming book.]*

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EDITORIAL.

*[All Unsigned Editorials are written by the Editor.]*

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FORENSIC ASPECTS OF PSEUDO-HERMAPHRODISM.—  
The recent application of a male, pseudo-hermaphrodite, educated as a female, to a Syracuse (N. Y.) court, to have his legal status fixed as a male is (Medicine, March, 1902) far from unique. Pseudo-hermaphrodism is sex arrested at the period of sex indifference. The amount of assimilable nutriment of the foetus being fixed, the portion needed for the sexual organs necessarily varies with the condition of the maternal organs. Since development of male organs from the indifferent types does not require so much nutriment as does female development, imperfect maternal nutrition tends (Geddes-Thomson: Evolution of Sex) to result in male organ tendency. If maternal nutrition be affected when sex organs have undergone partial female differentiation, pseudo-hermaphrodism results. True or bi-

lateral hermaphroditism can only be produced by conditions which cause organ duplication. In this case the lessened amount of nutrition is divided between two sets of organs. One set is arrested at that point in embryogeny when the male type is becoming dominant. Under the Roman law the legal status of hermaphrodites was fixed by making them possible witnesses to wills. The legal presumption was that the hermaphrodite was a male. While sex could be questioned this presumption obtained until female organ predominance was demonstrated. In settling sex legally the rule of predominance of sex characters obtains nearly as strongly as it did under the Roman law. The English common law with its scientific rules of evidence, affords an easy logical method of settling sex predominance in each individual case.

The subject has most forensic importance in the United States in connection with suffrage and marriage. Here existence of menstruation as an evidence of female predominance, has been most strongly contested. This was the chief issue in the suffrage cases reported by Dr. Harris of Virginia and Dr. Barry of Connecticut (*American Journal of the Medical Sciences*, July, 1847). Menstruation *per se* is, however, not demonstrative evidence of femininity. It has occurred in the male as witness the cases reported by Pinel, Fournier, Forel, King, Rayman and others (Gould's *Anomalies*). Fournier's case was that of a thirty-year-old man who had menstruated urethrally since his first coitus which occurred at puberty. He experienced pains of premenstrual type twenty-four hours before the flow. These subsided when menstruation began. The flow was abundant on the first day, diminished on the second and ceased on the third. The case of Dr. Barry was decided in favor of masculinity despite some evidences of menstruation.

Hermaphroditic states are also forensically involved in marriage, divorces, sterility and impotency. Education may give sex direction rather than any innate tendency. Windle (*British Medical Journal*, June 14th 1886) reports the case of a male who had undergone arrest of development toward the female type, was brought up as a girl, had unusually

pleasing womanly qualities and as a result was married thrice to intensely devoted husbands, but the real sex was never suspected until the necropsy demonstrated that the supposed woman was a male. In an Italian case (*Gazette degli Ospedali Milano*, July 29, 1895) the question of inheritance as a male was not settled until fifty-one years after birth. "She" was married at twenty-one but found coitus repugnant and painful. Ten years after "she" separated from "her" husband. Dressing as a woman "she" copulated with women. "She" had an altercation at the age of fifty-one with "her" brother. "She" prosecuted him for assault and he in turn charged "her" with seducing his wife. As a result "she" was judicially decided a male. Cases of divorce because of errors in sex are far from infrequent in European continental courts. Neugebauer has collected fifty-one cases, of which forty-seven were males and four females. Three females had married female pseudo-hermaphrodites. In one of these cases the husband had been delivered of a well-formed male child at term. One male pseudo-hermaphrodite had lived with three successive husbands. The last obtained (*Annals d'Hygiene Publique*, Aug., 1901) a divorce because of infection with venereal disease by his partner.

Cases in which male pseudo-hermaphrodites have proven potent are frequent in the literature. A pseudo-hermaphrodite (who passed for many years as a female) had a cleft scrotum and hypospadias; sleeping with a fellow servant for three years he had frequent coitus and finally impregnated her. In another case (Gould's *Anomalies*) pregnancy and delivery occurred in a girl impregnated by a bed-fellow who proved to be a male pseudo-hermaphrodite. Such relationships however do not demonstrate sex since sexual inversion, as Kiernan remarks (*Alienist and Neurologist*, 1891) may result in pseudo-hermaphrodites from experiments by females with the enlarged clitoris of the female pseudo-hermaphrodite or by males with the cleft scrotum of the male pseudo-hermaphrodite. G. F. Lydston reports (*Medical and Surgical Reporter*, June, 1899) the case of a young mulatto who had marked hypospadias and

an affinity for women since he contracted a gonorrhea in the normal manner. He also had a predilection for the passive role in the act of copulation since a number of lads ranging from ten to seventeen years of age (who lived in the neighborhood in which the spurious hermaphrodite was employed as a cook) contracted gonorrhea from him.

In some cases the urethra as in the female shrew-mouse perforates the clitoris. In other cases the penis is imperforate. Dr. McBurney by a plastic operation enabled a victim of imperforate penis to urinate when erect. The sexual inclination here varied with dress; male attire inclined it to the female and female to the male. A "sister" had an allied deformity.

A tendency to hermaphrodism occurs in families.

Phillips (Virchow's Archives LXXV) reports four cases in one family. Pozzi (*Gaz. Med. de*, Paris 1885) reports a family of nine in whose descendants this anomaly was found. Hermaphrodism is one transformation of heredity occurring in degenerate stocks.

Dr. S. D. Gross once performed a castration to deprive a child of sexual appetite and marital tendencies. The child at the time was three years old. Until two years of age it had been considered a girl. It then began to evidence male tastes, dispositions and feelings. Instead of the penis there was a small clitoris and instead of the vagina a superficial depression covered with mucous membrane. The urethra occupied the female situation. The nymphæ were diminutive. The labia were well developed and each contained a normal testicle. Three years after castration, the disposition and habits of the child underwent radical change and it delighted in female occupations. Gross advocates the operation, still there are serious doubts as to its justifiability. Castration, as Wharton and Stille remark (*Medical Jurisprudence*, Vol. III, p. 150) removes "merely the external and in cases like this, the very distinct evidence of sex and hence only adds to the doubts of the rightful sexual character. It does not necessarily extinguish the sexual instinct nor deprive the person of

his only incentive to matrimony and finally it in no way relieves him from the odium or aversion with which the malevolent or ignorant may regard it." The surgeon, however, would not be guilty of malpractice provided consent in the legal sense of the term was obtained for castration of such patients.

The term hermaphrodite applied to a normal person in contempt has been judicially declared to be libelous, yet, as Wharton and Stille admit, it tends to create odium. In Scotland this odium has led to the judicial burning a pseudo-hermaphrodite for impregnating a girl. The psychoses most frequently found associated with pseudo-hermaphrodisism are, as might be expected, the degenerative types.

FIRST TO VACCINATE.—Should one be asked who discovered that smallpox could be prevented by vaccination, he will at once answer Doctor Jenner, yet an epitaph was recently discovered which seems to indicate that he was not the first to employ inoculation as a preventive of this disease.

The epitaph is engraved on a stone in the cemetery at Maltravers, in Dorset, England, and it reads as follows: "Sacred to the memory of Benjamin Jesty, of Downshay, who died April 16, 1816, at the age of seventy-nine years.

"He was born at Yetminster, in this county, and was an upright and honorable man; moreover, he acquired a wide reputation, since he was the first to use cow-pock for the purpose of vaccination. Thanks to his powerful intellect, he was enabled, in 1774, to make successful experiments in this direction, and among those whom he inoculated were his wife and his two sons."

Doctor Jenner, it is said, did not make his first experiment until 1794, whereas Jesty, according to the epitaph, experimented successfully in 1774—twenty years earlier.

THE MISCONSTRUCTION OF THE CODE OF ETHICS which enjoins physicians against the methods of advertising like the quacks, *i. e.* by offering to give public advice



to the poor gratis and by private cards or public handbills proclaiming ones skill to cure special diseases, has deterred capable physicians from imparting the kind of information they ought to impart on all proper occasions to the public. Up to date the public has obtained most of its knowledge indirectly from published accounts of epidemics, etc., and what Health Boards are doing and from occasional newspaper extracts from Medical Society proceedings selected on the judgment of non-professional and of inexpert newspaper reporters and from the alarming, overdrawn and often perverted statements made in quack advertisements.

Often the first and only knowledge of what the medical profession is doing gets to the public through the last named mercenary channels, who often pay tribute to the great work of the medical profession by indirect reference to the merits of its dead Masters and by naming their quack establishments and more or less fake remedies after our great names. For we know, though the public does not, how many of the patent medicine men of our time have been simply drug store clerks or bottle washers or porters sometimes in doctors' offices, evolved and transformed into patent medicine proprietors and kings of gullibility and Napoleons of fake finance founded on humbug—folly in matters medical and fake healing with the people, because we who have the light to shed give it not, but leave the popular medical world in darkness.

INSANITY IN THE NEGRO.—The statement has been made by Professor Stanley Hall that insanity is rare in the negro and that he proposes to ascertain the cause for this. Any assertion anent rarity, frequency or increase of insanity always requires analysis. Among primitive races, frontier or mountain communities, mental states pass muster, which, in urban communities or thickly settled districts, would be sent to insane hospitals as dangerous, because of their inability to adjust themselves to the intellectual strain of such an environment. For this reason and partly because of the discipline of slavery, insanity was thought to be comparatively rare among negroes. Fifty-

four years ago the eminent Southern alienist, John M. Galt, remarked that (Treatise on Insanity) "the proportionate number of slaves who become deranged is less than that of free colored persons and less than that of the whites. From many of the causes affecting the other classes they are somewhat exempt. For example they are removed from much of the mental excitement to which the free population of the Union is necessarily exposed in the daily routine of life, not to mention the liability of the latter to the influence of agitating novelties in religion, intensity of political discussion and other elements of excessive mental action, which is the result of republican form of government. Again they have not the anxious cares and anxieties relative to property which tends to depress us as free citizens. The future which to some of the white population may seem dark and gloomy to them, presents no cloud upon its horizon. Moreover not only are they less exposed to causative influences of a moral character, but the mode of life which they lead tends to strengthen the constitution and enable it to resist physical agents calculated to induce insanity." The existence of insanity among negroes in the United States has greatly increased since emancipation. As Dr. J. W. Babcock, of Columbia, South Carolina, several years ago pointed out (*Alienist and Neurologist* 1895, page 423), brain diseases have become more common in the negro as compared with the whites, having increased according to the census from one-fifth as common in 1850 and 1860 to one-third as common in 1870 and to one-half as common in 1880 and 1890. According to the figures of the Census office the negro insane of the United States were in:

1850	538	giving a ratio of 175 per million.					
1860	766	"	"	"	"	169	"
1870	1,832	"	"	"	"	377	"
1880	6,157	"	"	"	"	912	"
1890	6,756	"	"	"	"	886	"

By the last two enumerations the proportion of colored insane in different parts of the country were as follows:

	1880	1890
Northern States	1 in 545	1 in 542
District and Territories	1 in 680	1 in 376
Southern States	1 in 1,325	1 in 1,364

In Virginia the increase of insanity in the negro has been for twenty-five years so said to occur at the rate of 100 or more per cent every ten years. Increase of insanity in the negro after emancipation began to be recognized by Southern alienists as early as 1867.

The percentage of insane negroes in Chicago, according to Kiernan, is practically the same as among the whites. The degenerative types, however were double the number among white Americans. The percentage of parietic dements was twice as great as that found among negroes in New York and more than twenty times as great as among the negroes in the South.

The increase of sadistic rapes by negroes since the war is an indication of the existence and influence of degenerative factors. Seventeen years ago Kiernan remarked that (*Journal of Nervous and Mental Disease*, 1885,) among the psychic phenomena presented by negroes, which most deserved study, were revival of the Voodoo superstitions and the frequent recurrency of attacks of sexual furor, especially in the Spring. "These last, which in their predominant characteristics most strongly resemble the attacks of sexual furor in the bull and elephant are analogous to the running "amok" of the malay. It is difficult to study these attacks of furor since they are soon treated by the prescription of lead, hemp or steel in sufficient quantities to produce euthanasia. It is noteworthy that these attacks were rare during the war, when the fidelity of the negro to the wife and children of the absent master was proverbial and that they are especially frequent in States once coursed by "Carpet-bag" statesmen, whose changes in the social status of the negro were especially frequent." Developments since this time show that much of the sexual furor of the negroes is of a sadistic type, which finds enjoyment in torture of the ravished victim. In its essence it is akin to the crimes of the "hair clippers," the "dress destroyers" and the tortures of "Jack the Ripper" type. Sadism originates, as Kiernan has pointed out (*Alienist & Neurologist*, 1891) in hunger. Conjugation occurs, as Rolph remarks, when nutrition is diminished, whether this be due to

want of light or the lower temperature of autumn or winter or to a reduction of the organism to minimal size, it is a necessity for satisfaction of a gnawing hunger which draws the animal to engulf its neighbor to isopathy. The process of conjugation is merely a special form of nutrition, which results on a reduction of the nutritive income or an increase of the nutritive need. It is an isophagy which occurs in place of an heterophagy. The less nutritive and therefore smaller, hungrier and more mobile organism we call the male; the more nutritive and as a rule relative, more quiescent organism the female. Hence it is that the small, starving male seeks out the larger, well-nourished female for purposes of conjugation to which the latter, the larger and better nourished, is on the motive, less inclined. Without conjugation, as Maupas remarks, the members of an isolated family of infusoriac eventually ceased to feed and divide and pass through stages of degeneracy and and senility to extinction. That this association of love and hunger longer persists, is shown in the case of what Emerson calls the

Demon spider that devours his mate  
Just free'd from her embraces.

The negro from stallion-like sexual excess develops perversions on the principle that a nerve too frequently irritated by given stimulus, requires a new stimulus to arouse it. Another factor to be considered is that white contempt for virtue of the negro female (which existed before emancipation) naturally creates a similar psychologic state in the male negro, who has aimed ever since the war to put himself on an equality and even superiority to the white. To such a degree has this last been carried, that antagonism between mulattoes and comparatively pure blooded negroes results. This last produced in the negro republics of Haiti and St. Domingo the extinction of Mulattoes by massacre. While in these two republics increase of insanity is not traceable, still the reversions to barbarism (shown in the cannibalism which, according to the admission of Fred Douglass, existed as late as 1867) would

enable intellects (which in a civilized community would be regarded as warped) to pass muster there. While negro ethnologic psychiatry needs study, its problems must not be approached from on a prior standpoint.

IN MEMORIAM—Eugene G. Carpenter, A. M., M. D., Superintendent of the Columbus State Hospital, died October 19, 1902, of apoplexy. Born in Richland county, Ohio, in 1858, he graduated from the Mansfield, O., High school, Ohio Wesleyan University and the College of Physicians and Surgeons, Baltimore, Md. In 1885 he was appointed assistant physician to the Cleveland State Hospital. In 1898 he was appointed Superintendent of the Columbus State Hospital. Many improvements were made by him in the management of the insane and in the general appointments of the institution. Among them an acute insanity disease infirmary and pathological department. In 1898 he was elected Professor of Mental and Nervous Diseases in the Ohio Medical University, and Neurologist to the Protestant Hospital. "In his death the state has lost a distinguished and capable official, the University with which he was connected an eminent teacher, and the profession an honored member." He leaves a widow and son, Eugene Carpenter, and hosts of friends to mourn his demise.

A YOUNG MARRIED MAN, with a wife elsewhere, makes a matrimonial engagement with another woman, but failing to secure a divorce, his second fiance marries another man, when he proposes a mutual suicide poisoning plan. This being refused, he swallows one of the fatal potions himself and dies in her presence. This form of conjugal erotopathy with the suicide of one or both parties when obstacles come in the way, is not uncommon.

With all the obstacles which would surround a liaison in a doctor's office, a physician told me of one of his patients who had previously been in an insane asylum for a functional psychosis who, when mental trouble returned in erotopathic form, offered herself to him, and, on his declining and advising her to think of other things and to marry, be-



came erotically suspicious of his character and spent many weeks afterward in a disagreeable espionage of his office and visits there and thereabouts, until her aberration assumed other phases and she was recommitted to an institution for treatment and supervision.

Tuke's Dictionary of Psychological Medicine refers to a feature of this subject briefly as "Old Maid's Insanity," a form of insanity so called by Dr. Clouston, and "Ovarian Insanity," by Dr. Skae. It is characterized by a morbid alteration in the normal state of woman towards the other sex. The patients are as a rule unattractive old maids about from forty to forty-five, who have led very strict and virtuous lives. The lady becomes seized with an absurd and reasonless passion for some particular individual of the opposite sex, very often her clergyman. She believes him to be deeply in love with her, or accuses him of seduction or other misdeed in connection with herself, and uses the merest trifles as proofs of her beliefs. Recovery is rare, the insanity often passing into some other form. Clouston says there is no proof that the ovaries are affected.

These morbid accusers are often maids approaching the menopause suffering from genital erethism and the neuro-ovarian involution of the dodging period, but they are not always unattractive old maids, as Tuke calls them, nor do they always display their erethistic morbid erotopathic suspicions towards clergymen. Lawyers, business men and doctors are often victims of their annoyance.

Married sexual erotopaths, male and female, sometimes get into the divorce courts, where their exacting, morbidly erotic demands on the time and attention of their bonded life partners appear in demands for unreasonable attentions and displays of profoundly jealous selfishness. Such cases are sometimes rebuked by courts and dismissed, when a lunatic asylum sentence for one or both of the parties would be the wisest disposition. Matrimonial infelicity is not so likely to result from two neuropaths joined together in abnormal holy wedlock, that is, where in the early period of matrimonial life, there are two of a kind. The result with them is usually mutual satisfaction for a time, with

neurotic progeny, but finally mutual disgust, dislike and separation appears after excess has exhausted passion.

WE CAN NOT USUALLY CORRECTLY GAUGE THE ACTION OF MORBID MIND by rules of conduct for normal minds, though the brain of the insane does sometimes act in an apparently reasonable manner from a wrong and morbid premise for its reasoning. The insane mind, however, is most frequently moved by motives of action just the reverse of those which influence the normal mind to thought.

An unwarranted unreciprocated erotic regard or love or passion unrequited, appears to be the cause, in most instances, of the singular conduct, letters and speech of the sexual erotopaths. They choose for the victims of their annoyance, calumny, and sometimes vengeance, friends, fiancés or wives of those toward whom they have come to feel a morbid attachment or display a morbid love.

Sometimes they, in their delusion, select a mere casual acquaintance and sometimes even a stranger whom they deludedly think has fascinated the victim of their erratic erotism.

These genesiacaally dominated erotopaths sometimes offer themselves in matrimony to the men selected for their morbid affection. Meeting with discouragement and perhaps angry rebuff from the startled man they have chosen without approaches from him, who may not be a neurologist, and therefore without the psychiatrist's knowledge of these morbid minded perverts, they display all the fury of a neurotopathic erotopathic "woman scorned."

These are the women who should have their pudic nerve endings severed and the neural relations between the entire genitalia and brain cut off or they should be sequestered from normal society.

AN EFFICIENT OPERATION FOR HOMOSEXUALITY, EROTOPATHY and sexual perversion in other forms, without physically unsexing the individual, would appear commendable in the severing of the pudic nerve in its relations with the genitalia, especially in the afferent communica-

tion of the genital organs and genital cord center and brain.

THE TROUBLE WITH SOME OF OUR STATE PSYCHOPATHIC HOSPITALS, that is, with those that are not what they should be, is not in their governmental organization, (for the American plan is an element of strength rather than weakness when proper official personalities fill the offices)—the trouble when it really exists, is in the vicious system of political selection of medical superintendent. If the medical superintendent is the right man for the place, the medical machinery of the hospital will prove efficient, the pathologist, microscopist, medical assistants, pharmacists and all subordinates will do the best work, being accountable, under the general direction of the Board of Managers, to the superintendent and dependent upon him for their positions. And with this arrangement the engineer, the farmer, the gardener, the steward and treasurer will feel that it is best not to displease the chief medical officer and superintendent. The treasurer might be entirely independent of the superintendent.

If the superintendent may at pleasure, through the direction of the steward or managers, suspend or discharge an engineer, the temperature, ventilation, and every hospital comfort dependent on the engineer's efficiency and compliance with the doctor's orders, will be best secured at all times. And so on throughout the establishment.

In every hospital the voice of the chief medical officer should be supreme law in everything that may tend to the welfare, treatment and prompt recovery of the sick.

It is belittling the chief medical officer to make him subordinate to anybody about a hospital, except to the Board of Managers and their unitedly formulated rules and regulations.

The habit of belittling medical men in executive capacity by medical men themselves has bred a contempt for medical men in official capacity which has proven harmful to the entire medical profession in this country and they are consequently relegated to back seats in pub-

lic affairs and less competent "business" men (so called) placed above and before them.

But for this vicious sentiment we should have had a medical man in the President's cabinet, from the beginning of the century, whereas now we are still waiting for this act of justice to the medical profession and of necessity to the country.

PSYCHIC SANITATION AND THE MEDICAL STUDENT.—We have before us the announcement of a medical college which displays thirty-seven professors and forty lecturers exclusive of the janitor. The psychic sanitarian appears to have taken his departure from many of our medical colleges.

MOTHER EDDY'S LATER CONCESSION TO POPULAR ERROR.—The apostle of Christian Science, some time ago, conceded that the faithful might consent to lawfully enforced vaccination. Now she enjoins the reporting of contagious diseases to the authorities.

The cause of her last pronunciamento was the action taken by the New York health authorities for damages for the death of a diphtheritic child treated by Christian Science.

"I have always believed that Christian Science should be law-abiding, and, actuated by this conviction, I authorized the following statement about one year ago:

"Rather than quarrel over vaccination, I recommend that if the law demand an individual to submit to this process, he obey the law and then appeal to the Gospel, to save him from any bad results. Whatever changes belong to this century, or any epoch, we may safely submit to the providence of God, to common justice, individual rights and governmental usages.

"This statement should be so interpreted as to apply on the basis of Christian Science, to the reporting of contagion to the proper authorities, when the law so requires."

Mr. Reedy's St. Louis *Mirror*, commenting on a recent Christian Science fatality in New York City, says:

"In Dahomey, we are informed by Joseph Alexander Til-

linghast, the priests of the natives cure diseases by driving out the evil spirit. These wild tribes of Darkest Africa believe that all disease is spiritual and should be healed by spiritual means. Christian Scientists believe about the same thing. If you suffer from a well-developed case of the mumps or appendicitis, there is nothing especial the matter with you, except that you are the victim of 'error,' and all you have to do to rectify the error, is to pray or have somebody else pray for you. There is no disease in the world—what is known as such is 'error,' or 'claim.' This Dahomeyan idea is wonderfully simple and primeval. It is as simple and primeval as the intelligence that brought it forth and that believes in it. To identify the teachings of the Saviour with such rot as these un-Christian Scientists are exuding is a stupendous impertinence. There is as much affinity between fundamental Christianity and Eddyism as there is between the writings of Thomas Aquinas and of Voltaire. Eddyism is Dahomeyanism and fit for those only who live in kraals and walk around in the altogether."

The *Mirror* might also have added Hahnemannianism to the list, for the founder of homeopathy regarded all disease as spiritual and all medicinal substances as containing spiritual potencies whose potency was obtained by extreme trituration and high dilution and on this delusion he founded a medical cult which became as popular as Christian Science or mesmerism or as Perkinism with the metallic tractors. Likewise the practice of the Navajo medicine man who regards all sickness as the evil spirit. The remedy is to get rid of the devil. The enemy of man is mortal mind, claims the Christian Scientist; overcome belief in material things and there will be no sickness nor death. That the Indian has practically no knowledge of even the simplest medicinal remedies is well known among anthropological students.

CHRISTIAN SCIENCE AGAIN—"The New York Board of Health reports the death of a little child from malignant diphtheria and Christian Science prayers. To questions why



no physician had been called, the mother naively replied that 'we don't have illness, but have claims and errors, and if we properly pray, and trust in God, we will recover.' One of the praying healers hastened to add that Christian Science heals 'through the power of God over the body through the mind.' A case and vamping of this kind are enough to stagger the senses of anybody that is not confined within the walls of a 'bug-house.' Could there be anything more idiotic than Christian Science and its doctrines? And yet, there are many among the educated classes who unhesitatingly assert their utmost faith in the teachings and truth of this preposterous religious idiocracy and fly into veritable fits of rage whenever the insinuation is made that Christian Science is nothing but a monstrous fake. The adherents of this bizarre cult are as fanatical as the mad Mullahs of Somaliland." So says the *Mirror*, of St. Louis, "and rightly so, for there is hardly any difference between their beliefs and those of the Mullahs and negroes of Africa. Du Chaillu, the African explorer, is authority for the statement that 'the Camma theory of disease is that Okambo (the devil) has got into the sick man. Now this devil is only to be driven out with noise, and, accordingly, they surround the sick man and beat drums and kettles close to his head; fire off guns close to his ears; sing, shout and dance all they can. This lasts till the poor fellow dies or is better.' "

AMERICAN DIPLOMACY.—The best blood and the best nerve tone and brain qualities of the best people of the earth are commingled in the governing element of the American nation. It is to be hoped that nothing in its dealings with the other nations will ever be displayed that may tend to impair the high estimate in which we proudly hold ourselves by reason of our exalted brain and blood heritage.

A justly proud patriotism prompts us as a citizen, in view of the recent Venezuelan difficulty, to express the hope that no duplicity may ever enter into American diplomacy with the Powers without our borders.

EXCESSIVE PROTEID DIET.—The Antikamnia people have an enterprising and *argumentum ad hominum* way of appealing to doctors. The following is a sample. Some wideawake doctor must have been behind the get-up of this advertising appeal:

It doesn't require much of an argument to show that good material must go into the twenty-story building if it is to be solid and secure.

Yet a great many people seem to think that it matters little what kind of material goes into the building of the human structure!

They offer the body thistles and ask it to give back figs.

They feed on thorns and expect to pick roses.

Later, they find they have sown indigestion and are reaping ptomaines.

It is a wonderful laboratory this human body. But it can't prevent the formation of deadly poisons within its very being.

Indeed, the alimentary tract may be regarded as one great laboratory for the manufacture of dangerous substances. "Biliousness" is a forcible illustration of the formation and the absorption of poisons, due largely to an excessive proteid diet. The nervous systems of dyspeptics are often but the physiological demonstrations of putrefactive alkaloids.

Appreciating the importance of the command, "Keep the Bowels Open," this well-known chemical medical catering company offers "Laxative Antikamnia & Quinine Tablets, the laxative dose of which is one or two tablets, every two or three hours, as indicated. When a cathartic is desired, administer the Laxative Antikamnia & Quinine Tablets as directed and follow with a saline draught the next morning, before breakfast. This will hasten peristaltic action and assist in removing, at once, the accumulated fecal matter.

We look next to see Antikamnia therapeusis added to the chain of materia medica and therapeutics of some of the post-graduate colleges. This firm does a lot of entertaining materia medica talk.

THE NEED OF A GOOD, CLEAR HEAD.—A writer in *The Republic* of this city, January 1st, discussing "the responsibilities that rest upon the man who manipulates the key in the lonely little telegraph office" of a great trunk railway, makes the remark with which we caption this paragraph, with an added word of sympathy for the operator, so fraught with responsibility.

The man behind the gun has received his meed of praise for heroic devotion in periods of war time peril. It is time the man at the ticker and his coadjutor, the platform train dispatcher, should be considered. A good "clear head," kept in good order and clear and strong for the grave responsibilities of the train dispatcher's place, should be secured by having a judicious care and concern for the rest, recuperation and strength and maturity of brain, essential to this exalted position. It is said that one of the responsible operatives in the recent Grand Trunk Railway horror was an immature youth of sixteen years. This is horrible criminal indifference to the brain power needs of so responsible a railroad position. But the capital crime of the railway corporations is the overworking and underresting of their employes. This crime outweighs the consideration of inadequate pay of employes outside of those chosen directly by the directorate of railroads and the other crime of some roads yet, of looking lightly on intemperance of men while off duty.

The brain of a railroad employe needs regular and complete replenishment and repair, quite as regularly as the batteries and implements and wires of its telegraph system. The brains and entire nervous systems of the entire working force of a railroad should be kept up and run on the same system of complete and timely repair for good work as the railroad's equipment. When as much attention is paid to the brain quality, brain rest and brain nutrition and recuperation of railroad men, there will be fewer accidents. Humanity and charity in this regard are sound business policy and economy of human life. The same applies to our strenuously striving for dividend street railways.

If the brain strength and well-being of the men are

considered from the standpoint of their physiological necessities, the railroad companies and the traveling public will profit, and insurance companies will suffer less from needless losses of life and property to be paid for, and if the spirits of the twenty thousand dead victims of railroad disasters in this country, most of whose lives went out during the past three years because of brains, short sighted and inefficient at their posts of duty, from weariness and instability, from overtax or weakening indulgencies; if they could speak as the world's best neuropsychologists could, of the crime of mental overstrain in such positions, they would say perhaps we had preferred to remain riding on earth on roads with mentally well equipped, well paid, capable brain service, rather than have gone into eternity in the finest finished palace parlor observation or dining coaches in the world.

Let us have level-headed, well-rested, nourished, sustained and equably working efficient brain service on our railroads.

OBJECTION TO THE JAPANESE JINRIKISHA, at the coming St. Louis World's Fair, as made by Dr. Ashmead, is not in our judgment well founded. Dr. Ashmead, who has been a foreign medical director of the Tokyo-Fu Hospital, states his objection as being medico-humanitarian as follows:

"Doctor Albu of Paris has recently communicated to the British Medical Society certain effects produced on the heart by overexertion in cycle races. The strain on the heart is shown by well-marked dyspnoea, after races lasting five to thirty minutes, by strong pulsation of the heart and arteries, but, as the *Lancet* says, 'The most remarkable fact was an acute dilation of the ventricles, especially of the left ventricle.'

"Let me say, that that is very similar to the 'jinrikisha' heart of Japan. The jinrikisha man of Japan runs thirty-five and forty miles a day at top speed in shafts like a horse. His life, as a professional one, averages five years. His heart develops hypertrophy and dilation of the left ventricle; there is also chronic aortitis, aortic insuffic-

iciency, aortic aneurism, or cardiac left ventricular aneurism.

"The causes of these conditions as I have set them down in my Tokyo-Fu Hospital notes are, first, predisposing causes, tuberculous and syphilitic joints; second, active causes, violent and prolonged physical exertion.

"Thus, the jinrikisha is a veritable instrument of death to the Japanese, and, from a humanitarian standpoint, should be eliminated from all civilized society and kept out of America. Once admitted here, it would sweep our cities like wildfire by its popularity, like it did the cities of the Mikado's Empire."

Exercise and prolonged overstrain by any sort of physical exertion brings breakdown and death. The strenuous life of our day, mental and physical, in business, in professional endeavor, in political ambition, in our college games, and even in the social life of society tends to the destruction of our strenuosity. The primary and lasting strain is on the overtaxed nerve centers of organic life. The strain and destruction of the ginrickey, the cocktail and kindred seductive alcoholics is in the same direction.

But the remedy, save in regard to the latter which had better be tabooed altogether, is in judicious regulation of effort followed by adequate and timely compensatory rest of the strained and tired organism, rested before and after each exertion before unrecuperable exhaustion results from the efforts.

The strenuous life develops strength in the human organism if exertion is duly tempered with timely repairing relaxation and rebuilding of strained organs and nerve centers.

The jinrikisha man of America can be educated and regulated to rest more and work within his normal powers, till he shall have attained the organic development essential to his highest work and shall exceed his Japanese co-worker in the shafts. What a Japanese can do an American can do and more. The effort that may break down a Japanese need not destroy an American. Let the jinrikisha and everything else that is novel in the world come to the Louisiana Purchase World's Fair of 1904. The



St. Louis World's Fair should show its visitors all the essential features of the world's attractions and exhibit as many as possible of the world's educational features. It should supplement a trip around the world for those who have not seen or can not see the world abroad. It should be equal to a tour of the world.

Let us have the jinrikisha even if we forego the Jin Rickey, though in an emergency of overstrain the Jin Rickey might come to the temporary rescue of the jinrikisha man.

LEMON JUICE FOR TYPHOID now comes forward as it once before did for rheumatism. It has proven a good germ killer in the laboratory, so do all acids in culture fluid and so is the hydrochloric acid of the gastric juice. The important thing is to get it past the pylorus and down among the habitat of the bacilli in Peyer's patches.

DOCTOR RUNGE, superintendent of the insane asylum, states that that institution is housing about 600 patients, while its normal capacity is for only half that number.

The adjacent Poorhouse, which is also a receptacle for chronic insane, is also crowded, and applicants for admission there are being turned away every day.

Superintendent Neitert has five patients at the City Hospital whom he is anxious to have transferred to the insane asylum, and the Board of Health yesterday ordered two patients of private institutions sent there.

If there is room at the state institution and arrangement can be made, the overflow should be sent there. But the duty is imperative on St. Louis to have accommodations for a thousand insane. The city hospital and poorhouse quarters are not suitable. A holocaust may reward the city's neglect of building better fireproof accommodation.

The new city hospital should have a modern psychopathic annex. While St. Louis appropriates five millions in bonds to the World's Fair, it should also provide for its multitude of mentally maimed who have fallen in the battle of life. Many of her present insane were once workers for

her welfare and taxpayers and some themselves ranked among the charitable who "felt for another's woe" and now woe has befallen them.

ST. LOUIS BEAUTIFUL.—As St. Louis leaps forward toward her high destiny during another year, let her not omit the beautifying of her streets by artistic grounds and trees and buildings. No city of this continent nor of the old world need be more beautiful in appearance, if the civic pride of the people of this already handsome Louisiana Purchase city, is awakened into the executive energy of which it is capable. The Springfield Republic, quoting Professor Josiah Royce of Harvard with reference to the surroundings of the city, says: "Nobility, dignity, beauty, these things do not come accidentally, they are not the result of chance gifts, of monuments stuck up here and there at random. They call for wise and far-seeing plans, for the subordination of details to the whole, and of individual caprice to a common end."

They must be planned, like the high aim of a noble life and the plan must be steadily, perseveringly worked to. Look at Paris and Boston for example. The civic improvement league have made a good beginning in St. Louis. Let their work go on and let us all help.

THE DOCTOR'S BILL.—You may spend all the days of a long life in earnest, studious, persistent endeavor, spending money also freely in research and for books, travel, implements and all sources of knowledge and relief, and when you ask for recompense commensurate with your service, meet with denial by half your financially capable patients, unless you have contracted with them in advance, which you can not well do except in a contemplated surgical procedure, the beginning and the end whereof are plain to see beforehand.

The surgeon is willingly accorded larger fees, and justly, for operations that save life at the expense of a section of the human anatomy.

The doctor who timely diagnosticates the need of such

an operation and urges it in time upon the patient should likewise ask and be accorded a more than ordinary fee, such as is paid in an ordinary well-known and rationally treated medicable disease.

But the doctor who by extraordinary skill foresees fatal consequences and averts them and averts the capital operation which must come as a *dernier* resort after unsuccessful treatment, should demand a fee and be paid accordingly.

Doctors should strive for the highest skill, impress that skill on the patient and people and be rewarded accordingly.

KRAFFT-EBING'S DEATH is a world calamity in the domain of neurological medicine. The impress he made on psychiatric neurology is especially enduring. His one master work on homosexuality, *Die Contraire Sexual Empfindung*, will place his name in an admired niche in the Pantheon of Medical Immortals.

THE ANNUAL MORTALITY OF ST. LOUIS FOR 1902 is reported at something over ten thousand, including the street railway killings, which at the rate for December of 96 per month, will swell the number for 1903 very considerably.

At the rate at which the Transit Company is killing, maiming and indirectly causing disease by its spine and head and heart disturbing jerks and jolts and pneumonia and tonsillitis draughts and crushings on the platform, half the mortality may be attributed to our beneficent street car system.

It is not safe for a woman with child to travel on a street car now unless the child is big enough to occupy a place in her arms or on a seat. One woman had a miscarriage lately.

Neither people in carriages nor pedestrians are safe on our streets. What are we coming to? If the hackmen were to kill one human being a week the community would be up in arms and if a few coachmen drove as recklessly through our streets, as most of the street cars are now going, and killed a single man or woman a week, they would lose their licenses and be promptly on their way to the

penitentiary. This is the difference in the way we regard a reckless coachman and a heartless, reckless, murdering corporation aiming to make dividends while the people die, through neglect of the necessary life guards, of good equipment and skilled and cautious service.

The cars are too big and ponderous, the brakes too weak and slow and motorman's hours are too long and pay too little for the kind of service, which diminishes casualties and dividend prospects.

THE FOXY GRANDPA AND KATZENJAMMER KIDS illustrations of a portion of the Sunday papers are certainly not calculated to exalt the tone and quality of the psychic activities in the rising generation of America. There are improprieties and juvenile and youthful indiscretions enough in our American boys without the aid of the press. The Wild West, Indian-killing aspiring kids are developed by the suggestions of certain yellow backed novels. It only remains for our friends of the secular press to illustrate the youthful Dick Turpins, Jesse James and pyromaniacal incendiaries to make their school of crime complete. The morbid psychology of vicious criminal suggestion and imitative suicide would be a timely and profitable study for those inconsiderate editors who cater to the illustrative tastes of the public.

KING ALFONSO IS CLASSED AS A DEGENERATE by Macho. This conclusion of an article in the Catalonia Medical Review has naturally caused a sensation in Spain and brought out threats of damage suits for slander from court officials.

OPPRESSION BREAKS THE BRAIN AND NERVES and America has been kind to the world's oppressed.

But we have enough at home, and are making more of these burdens. The recent coal strike investigation shows how fast we have been making these neuropathic victims of heartless capital combine oppression.

We have enough nervous wrecks made at home in our own mines and manufactures or wine rooms and bars and some phases of our strenuous brain-breaking railway

and street car motor service. Selfish disregard of the limits of human nerve-center endurance prevails with those who are pursuing the dollar in gangs called "syndicates" as criminally as the prowling footpad, though within the law.

A SANITARY RECEIPT IN RHYME sometimes finds its way into the daily newspaper like the following, which lately appeared in the New Orleans Times-Democrat:

Full many a mortal, young and old,  
Has gone to his sarcophagus,  
Thro' pouring water, icy cold,  
Adown his warm esophagus.

THE ENTERPRISING AND RELIABLE PARKE, DAVIS & CO. send out some attractively illustrated Aseptic Vaccine advertising cards showing how to vaccinate, announcing pure, reliable and fresh vaccine. We endorse the Ad. and the goods with an endorsement based on adequate and convincing trial, and this is the time for doctors to look into the matter. The card is fit to hang on an office wall and the goods are always good to use.

THE CRAIG EPILEPTIC COLONY at Sonyea, N. Y., sends out an interesting showing of its good work in ameliorating the condition of these unfortunates, reporting the case of one young man who suffered for eighteen years with seizures averaging from 115 to 125 a month, or twenty-five thousand seizures in his life time. This recovery was without brain deterioration, the young man being able to return to the daily duties of his office regularly.

QUARANTINE AND LEGISLATE AGAINST THE NEUROPATHS.—The Nation legislates against the introduction of yellow fever and cholera but a greater and more enduring scourge to a nation is the neuropathic and psychopathic constitution (the neuropathic diathesis).

The victims of this brain degeneration can vote and legislate and engraft vicious views into the country's statutes and breed brain and other nerve-center distorted offspring. Mental cripples make neither good voters, good soldiers nor good non-voting citizens.



A NEW DIVORCE LAW, BASED SOLELY ON ADULTERY, is now before the Missouri Legislature. Such a law might better be entitled a Bill to Perpetuate Connubial Hell in the Family and Confirm the Miseries and Murmurs of the Tied.

Besides the ordinary matrimonial misfits, absolute mental incompatibilities, erotic mistakes, real jealousies and morbid delusions for which divorce action is ordinarily brought, there is the mismating with the neuropaths who could not live harmoniously outside of a lunatic asylum's constant restraint and surveillance and the masked and nocturnal epileptic, whose frightful fits come on in the night time or in the day time on most inopportune occasions.

There are psychological and neurological causes for divorce that legislators who oppose it, seldom know about. The drunken demoniac brute should not be imposed, for life, on the unfortunate woman whom he may have courted and married in his sober intervals nor should the other brutes who make slaves of women and brutally treat them, be protected in homes of good women, by bad divorce laws. Women should not be made servile chattel or victims of perpetual abuse and violence, with no chance for escape.

In the sermon on the mount the Savior's regard for women is apparent. He would not have them put away by their husbands for other cause than adultery, but he never said that the courts should not separate husband and wife and he never said that a diseased or otherwise unsuitable husband should not be taken away from the injured woman. No law should be made to perpetuate matrimonial misery of any kind by holding for life mismated couples in bonds of legal torture. So long as people are permitted to marry, who are neither joined together by Heaven or nature, no law should bind them so that they could not be put asunder. A divorce law that perpetually binds the unfit to live together, is like a law against the only remedy for disease. It were far wiser to make the marriage of certain mental cripples, moral neuropaths and perverts and criminals impossible than to lawfully interdict their matrimonial separation. The rights of posterity are violated and the perpetuity of a sane and

healthful race is endangered by marriage laws that do not discriminate against the neuropathically degenerate. And when the degenerately unfit are found mentally bound by law, their matrimonial bonds should be severed by law.

Idiots, epileptics, drunkards, imbeciles and certain hopeless lunatics should be lawfully taken out of the married state whether adultery can be proved or not.

The subjects of pseudo and real hermaphroditism, etc., are apropos to the subject, but we have already unduly lengthened this editorial.

DR. CHARLES TRUAX, of Truax, Greene & Co., of Chicago, entertained the Faculty and students of Barnes Medical College, St. Louis, with a most interesting and instructive lecture on Yellowstone Park. His audience was large and appreciative.

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## SELECTIONS.

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### CLINICAL NEUROLOGY.

A CASE OF SULPHONAL POISONING.—By H. de M. Alexander, M. D. (Edin.), Senior Assistant Physician, Royal Asylum, Aberdeen. A young woman of fair physique and 32 years of age, who looked anæmic but did not suffer from constipation, had been laboring under chronic mania of over two years' duration.

After a comparatively quiet interval of six weeks she became acutely maniacal, destructive, and impulsive. As on former occasions when an acute exacerbation of her mental affection had occurred, sulphonal was again administered to her in 30-gr. doses daily for one week, producing as much sedative effect as was desired without any untoward symptoms ensuing.

About twenty-eight hours after the last dose she refused her breakfast, and vomited shortly afterwards. Her skin was observed to be cold and clammy; pupils normal; pulse 86 per minute, of low tension, and somewhat irregular; respirations normal; temperature subnormal. Her gait was "groggy," but not to any marked extent; articulation was rather slow, but otherwise perfect, and her mental condition, though apathetic, was clearer than it had been for many months. The patient complained chiefly of feeling "very cold," and she was placed in bed and treated as a case of sulphonal poisoning.

The leucocytes numbered 5642 per c.mm., and remained under 6000 per c.mm. till the end. The urine, which was of a deep port-wine color, contained a trace of albumen, and on being examined at the laboratory of Professor Hamilton was reported to contain hæmatoporphyrin.

In spite of treatment her condition became rapidly worse. Flaccid paralysis appeared first in the legs, and spread rapidly upwards until the patient was barely able to turn her head. A varying amount of anæsthesia to touch, heat and cold was present, and was most marked in the lower extremities. The muscles were very tender to deep pressure, and shooting pains were complained of, chiefly in the lower limbs.

Bullæ appeared on the heels, calves, elbows, and the radial side of the left forearm. The superficial and deep reflexes were lost, and the contents of the bladder and rectum were passed involuntarily. The act of swallowing became gradually more and more impaired, the respirations hardly perceptible, and speech a mere lisp. Though naturally a certain amount of mental lethargy was present, the patient was cognizant of everything that went on around her, and her intellectual faculties remained remarkably clear until her death, which occurred on the fifth day after the toxic symptoms were first observed. A post-mortem examination was not obtained.

Though the above case may be regarded as an example of chronic sulphonal poisoning, certain "by-effects," as is well known, may ensue shortly after an initial dose of sulphonal or trional; the usual symptoms being vomiting, muscular incoordination, and mental stupor, with, in the more severe cases, a considerable amount of prostration associated with a rather rapid low-tension pulse.

Of ten cases in which we have observed these symptoms, sulphonal (30 grs.) was the drug administered in eight of them, and trional (20 grs.) accounted for the other two. All of these patients were women, and under treatment they recovered more or less rapidly.

In nine of these cases the menstrual epoch was imminent or already present; hence it would appear that sulphonal and trional should be used with caution in women at this period.—*Journal of Mental Science*.

LARYNGEAL OR PHARYNGEAL (?) WHISTLING.—A good many years ago, I met with a form of neurosis which,

for reasons presently to be adduced, I believed to be a case of pharyngeal whistling, although I have no desire to be dogmatic as to the origin of the sound.

CASE 1.—In April 1892, a young lady, æt. 27, consulted me, giving the following history:—She had had rather a weak voice for eighteen months, at the beginning of which period she had broken sleep, owing to having been a companion to an invalid. On closer questioning, it was elicited that her voice seemed to go partially when she attempted to sing. The most striking feature of the case, however, was that on expiration the patient emitted a low whistling sound of a plaintive, wailing character, which was very distinctly audible across my room, and which—before I recognized its source—seemed to me to originate outside. So far as I could ascertain, the whistle was due to contraction of the faucial pillars, which resulted in the formation of a narrow channel, bounded by them laterally, by the soft palate above and by the base of the tongue below. I arrived at this conclusion on the following grounds:—(1) Observation of the patient while producing the sound; (2) the sound was not produced when the tongue was depressed. The girl was neurotic, but there was no twitching of the palate or faucial pillars. The larynx was healthy, and the cords moved freely. On posterior rhinoscopy, the septum was seen to be irregular and thickened, while there was some enlargement of the posterior extremity of the right inferior turbinated body. The nasal speculum revealed some deviation of the septum to the right.—P. McBride, in *Edinburg Medical Journal*.

FIVE CONJUGAL PARESIS CASES.—These interesting particulars are recorded by P. Keraval and G. Raviart (*Arch de Neurol.*, Paris, June 19th). The authors admit that the histories of the ten individuals referred to unfortunately contain many blanks which they are unable to fill, but to the best of their ability they have endeavored to elucidate the more important points, especially the question of syphilitic infection. Their efforts do not point to a unified etiology in the cases under review. In the first case,



syphilis was apparently the sole cause, and no history of indulgence in alcohol or of over-work, or of hereditary predisposition, could be ascertained. In the second case, the rôle of syphilis was less apparent; yet the woman had passed fifteen years of her life in circumstances which make it hardly possible that she could have escaped infection. The husband, however, denied all knowledge of his own infection. Alcoholism infecting both parties to an equal degree seemed to be the only apparent cause in the third case.

In the fourth instance, neither alcohol or syphilis were ascertainable as causes. The husband's disease was attributed to traumatic injury of the head, and that of the wife to domestic worry.

In the fifth instance, the parties lived a regular life, were not addicted to alcohol, and presented no signs of antecedent syphilis. The husband's twin-brother died of general paralysis, occurring equally without apparent cause. In all five instances the disease appeared almost simultaneously in the husband and wife, but in four of them the husband was first presented for treatment. In no instance could the appearance of the disease in husband and wife be regarded as a coincidence. In the first two there was more or less direct evidence of conjugal syphilis: in the third of alcoholism; while in the fourth and fifth, the malady of the husband is supposed to have conducted towards the mental affection of the wife.—*Edinburg Medical Journal*.

HEMIATONIA APOPLECTICA.—Under this title Bechterew some years ago (*American Medicine* February, 1902,) described a disorder making its onset before the tenth year with an apoplectiform attack, immediately after which the affected half of the body became the seat of tonic muscular spasms without athetosis. In Pfeiffer's case, that of a woman of 31, the disease came on in the seventeenth year. The patient was out walking when she suddenly experienced a stiffness and tingling in the right half of the body; and, without any loss of consciousness, hemiplegia promptly developed. Recovery followed within a

week. Three years later, there was another attack of stiffness and weakness in the right half of the body, double vision and right-sided hemianopsia. Recovery again ensued. Five years after this, four months after delivery, there was another recurrence of the symptoms; this time, without restoration to the normal. There was stiffness of the right half of the body and hemianopsia; the hypertonicity of the muscles was very marked, especially in the right arm and shoulder girdle; but there was apparently no paralysis of the upper extremity. The movements of the fingers were greatly impeded by a tonic flexion. The thumb was spastically grasped by the index finger and middle finger. Passive motion in the large joints of the arm could be executed, but there was considerable resistance. Motion, or any position maintained for some time, greatly increased the tensions in the muscles. In sleep the tension was said to disappear, but the slightest motion sufficed to bring it back in the fingers. The reflexes and direct irritability of the muscles in the right arm were not increased. There was no athetosis or choreiform movements, and no changes in the electric reactions. The musculature of the arm was hypertrophic, as was also that of the right leg. The latter limb was not paretic and the spasticity was less marked than in the arm. The patellar reflexes were not increased and there was no ankle clonus. Irritation of the sole produced a dorsal flexion of the entire foot, but occasionally on the right side, merely a flexion of the great toe. There was no change in sensation anywhere. A typical, right-sided hemianopsia, without hemiopic pupillary reaction existed. The presence of the hemiopic pupillary phenomenon, in recent cases is in favor of the intactness of the pupillary fibers to the quadrigeminal bodies; its absence has no localizing value. The localization of the lesion in hemiantonia apoplectica, is probably the same as that of other posthemiplegic motor disturbances. The connection of these with the thalamus seems to have been demonstrated.

A 19-YEAR-OLD GIRL was on an elevated train when a collision occurred. On her return home she became ner-

vous and agitated and mentally somewhat confused. Four days after she was seen by a physician who found her in a state of mental excitement with incoherent speech and with incoordinate uncontrollable twitching of the muscles of the body. She gradually became unconscious and lost control of the sphincters. There was a temperature of  $108^{\circ}$ . The patient died and necropsy by the coroner's physician revealed what he called acute cerebral meningitis. There were deposits of lymph over the brain. The history of this case and the lesions would indicate "chorea insaniens" of the typhomaniac type.

THE PULSE IN THE INSANE.—Roxo proclaims that the sphygmographic tracings may be able to differentiate certain dubious cases of mental affections. In laborious research on 130 insane patients he found a very pronounced difference in the pulse between certain classes of affections. It was only exceptionally normal. He reproduces the tracing of a typical example of each class. In mania the pulse was slow, averaging in six patients 66 to the minute. In melancholia the pulse was polycrotic and slower than normal, averaging 62 in seven patients, but otherwise regular. The average in 14 patients with mental confusion was 82, the vertical line of the wave was very pronounced and the waves were polycrotic and very irregular. In nine cases of dementia the average was 78 and the sphygmogram resembled that of arteriosclerosis. In 11 paranoiacs the pulse beat was more rapid than normal, averaging 80. The sphygmogram is peculiar and characteristic in this affection. The top of the wave very rounded and irregularly polycrotic. In 18 cases of epilepsy the sphygmogram was marked by a short vertical line, frequently irregular, alternating with a dicrotic wave, the beat only 66 to the minute. In hysteria the tracings were very irregular, the beat averaging 76. In 25 alcoholic cases the pulse was within the range of normal rate. The vertical line was very short and the top of the wave frequently flat. The pulse averaged 64 in the cases of cerebral syphilis and 78 in those of systematic psychoses. M. Nery has reported that

he found some disturbance in the circulatory apparatus in 83 per cent. of the insane in his experience, but the characteristic differences in the pulse above noted are probably of reflex, vasomotor origin.—*Brazil Medical Journal*.

IMITATION, SUGGESTION AND SOCIAL EXCITEMENTS.—In discussing this subject Huber states that the normal individual is governed by the higher brain centers, while in the savage conduct is unreasoning, passionate, impulsive, imitative and instinctive. The changes produced in an intelligent person by hypnotism illustrate these differences. According as the hypnotizer wills he gives expression to the basal emotions, fear, hate, blind reverence for unworthy objects, etc. Other factors produce the same results, mainly imitation, suggestion and the force of social excitement, through which the power of calm observation and logical thought is lost. Huber illustrates the influence of these factors in Christian Science, the anti-Semitic mania, race riots, etc. The crowd is an entity not analogous in its psychism to that of the individuals composing it. All progress has been achieved mainly through the efforts of individuals who can withstand the hypnosis that has seized their fellows, and can influence them along moral, altruistic and religious lines.—H. M., in *American Medicine*.

GLYCOSURIA AND TABES.—Meyer reports a case of glycosuria and tabes, in which the excretion of sugar is absolutely independent of the carbohydrates in the food, as the assimilative power of the body for carbohydrates is not changed in the least. He proved this by giving the patients large amounts of grape sugar. He concludes from this that in this case of tabes the glycosuria is not the result of a primary alteration in metabolism, but that it is a symptomatic expression of a tabetic nuclear affection in the floor of the fourth ventricle.—E. L., in *American Medicine*.

NERVOUS DISEASES.—Spinal-cord tumors. Tumors of the central nervous system.—Joseph Collins, New York,



discusses some noteworthy cases of this character and briefly reviews the present status of the treatment of spinal-cord tumors. While the diagnosis of spinal-cord tumor is much more difficult than that of brain tumor, they are more susceptible to surgical treatment than the latter. While both may exist without causing symptoms, usually the smallest spinal-cord tumor produces very striking symptoms, which depend upon compression of the cord and roots and vary not only in character, but in kind, with the location of the tumor, so that the symptoms vary with the size, the location and consistency of the growth. The symptoms in order of their customary development are sensory, motor, visceral and trophic, and topical. The clinical manifestations are inconstant, and in a measure they depend upon whether the tumor is intra or extramedullary. The two most difficult things in the diagnosis are to determine where the tumor is in relation to the surrounding structures, *i. e.*, whether intra or extradural, and at what segment of the cord it is situated. In intramedullary tumors paraplegia is usually not so complete, though it may develop early with tumor of the meninges, but the great point in the diagnosis between the two is the pain, which in intramedullary tumor is rarely an initial symptom, but it is almost invariably so in tumor of the meninges, and is of great severity. The next most important symptom in favor of extramedullary situation is the limitation of the motor phenomena in the beginning to one side of the body, such as an extremity or the predominance of paresis on one side of the body. The most important aid in determining to what segment of the cord the tumor belongs is obtained from a study of the anesthesia. The consensus of opinion seems to be that the location of any tumor in the cord is from two to four inches above the uppermost limits of the anesthesia, and more often the latter figure than the former. The most common, as well as the most important tumors, are those of the meninges, especially tumors of the dura. Those growing within the dura are nearly twice as common as those growing without. The latter may exist for a long time without giving rise to symptoms pointing to im-



plication of the spinal cord, while intradural tumors give rise to such symptoms very early. About 50 per cent of intraspinal tumors are operable and of this number one-third to one-half are benefited by operation. The technique should be so perfected that the operation may be performed without the development of sepsis, for as many cases die from sepsis after the operation now as they did ten years ago. A number of cases reported by various authors recovered from the operation, but died from sepsis. A brief abstract of seventy cases is appended, of which thirty-one were submitted to operation.—*Medical Review*.

ALCOHOLIC EPILEPSY.—T. D. Crothers, Hartford, makes these facts prominent:

Alcoholic epilepsy is increasing rapidly in this country.

It is a psychosis and neurosis which should be recognized, having distinct symptoms, the recognition of which is imperative in the treatment.

Where the toxic symptoms are convulsive and explosive and come on suddenly, the future of the case is very ominous and the warnings from these symptoms should be heeded.

The connection between mixed drinks and these spasmodic symptoms are traceable and should be considered in the prognosis and treatment.

The treatment and curability of these cases can be carried on with great hopefulness, and undoubtedly in the future will become a prominent part of the work.—*Journal A. M. A.*, Dec. 13, 1902.

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## CLINICAL PSYCHIATRY.

INSANITY IN JERUSALEM.—The letter published in "*Notes and News*," from the Superintendent of the English Hospital in Jerusalem, draws attention to the want of provision for the enlightened treatment of the insane, as well as to an interesting instance of maltreatment.

The Christian (?) belief that insanity is due to possession by evil spirits, etc., led to much if not all of the

barbarous maltreatment of the mentally afflicted throughout Christendom during the middle ages, and even into the beginning of the nineteenth century.

That this horrible idea should still flourish in the scene of Christ's teachings 20 centuries later is one of the most grotesquely ironical facts that can be conceived.

The picture of an almost nude lunatic chained for forty days and nights (the period of Christ's temptation?) to the altar of an "orthodox" Christian church is one that should bring a blush of shame to every believer in Christianity, and should stir up an indignant desire to overcome such an anachronistic and anti-Christian anomaly.

Mohammedans treated insanity, as mentioned in our last issue, in connection with their hospitals, recognizing it as disease, and the first hospitals for the insane in Europe were those established in Spain,—due, no doubt, to the influence of Moorish ideas and examples. If the above-mentioned fact were sufficiently widely known, there is little doubt that an effort would be made to remove this reproach from the Christian Mecca.—*Jour. Ment. Sci.*

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## FORENSIC PSYCHIATRY.

THE CRIMINAL RESPONSIBILITY OF THE EPILEPTIC.—J. Punton, Kansas City, after a discussion of this question, draws the following conclusions from his arguments: (1) Epilepsy is a symptom of some brain disease. (2) Its continual presence tends towards mental deterioration. (3) The mental responsibility of the epileptic depends upon the extent to which mind or self-control has been impaired by the epilepsy. (4) The legal test of insanity is not sufficient, as mental irresponsibility is not incompatible with a knowledge of right from wrong. (5) Epileptics are, to some degree at least, responsible for criminal acts, more especially when the epilepsy is produced by their own fault. (6) Criminal acts of epileptics appeal to medicine rather than to law for their proper adjudication. (7) In all cases of murder in which epilepsy is proven, the law should be amended

to allow of like commitment to an insane hospital rather than to the penitentiary. (8) The mental responsibility of the epileptic, in case of murder, should be referred to a medical commission, appointed by the court, which again may be referred to local or county medical societies to name its members.—*N. Y. Med. Rec.*, Nov. 15, 1902.

## NEUROTHERAPY.

CHOREA, TREATMENT OF, WITH ARSENIC.—The treatment of chorea with arsenic is inadvisable in very acute cases with coma or paralysis, in those that have been treated for some time with small doses of arsenic, in those in which there is reason to suppose that the rheumatic process is going on in the acute form, and in cases of advanced cardiac disease. The writer gives the following principles for the administration of arsenic in the treatment of chorea: See that the tongue is clear before commencing treatment, and, if not, give a mild mercurial purge and a stomachic mixture for forty-eight hours. Put the patient on a bland and easily digested diet. Give the drug in a much diluted form and in the same dilution throughout. Do not discontinue on the first attack of vomiting, which may be due to accidental causes. Increase the dose daily. Keep the patient in bed throughout the treatment. If the vomiting persists, discontinue the drug for twenty-four hours and then give the same dose as the last. Examine the patient very carefully daily for any sign of toxic action. What must be aimed at is a form of shock action on the nerve-tissues, and this may explain why long-continued treatment with small doses fails. On discontinuing the arsenic the writer usually gives a mixture containing iron for a few days. F. M. Pope (*British Medical Journal*, Oct. 18, 1902).—*Monthly Cyclopaedia*.

THE PREVENTION OF SYPHILITIC INSANITY.—The prevention of disease, apart from the so-called preventable diseases, has at last attracted the attention of the public,

as evidenced by the movements now in progress in regard to tuberculosis and cancer.

Syphilis, the most preventable of all diseases, is also now beginning to be brought into notice by the medical profession, and we trust that the same success may attend efforts in this direction as in the two above-named diseases.

The dissemination of syphilis of late years has been permitted to be carried out to an unlimited extent, especially under the ægis of the religious (?) feeling of the country, and the plea of the liberty of the subject. The liberty of the subject to spread scarlatina and even small-pox has been greatly interfered with, but this more dangerous disease is allowed to be disseminated under the most favorable conditions, until at last it is becoming a national evil.

Insanity resulting from syphilis is probably the most obvious of all innumerable evils resulting from it, although in every medical text-book on every disease the part that syphilis plays is luridly painted.

Statistical evidence of syphilitic insanity is, however, very defective, and bears witness to something wanting in our methods of arriving at the actual rather than the apparent causes of disease. In the Report of the Commissioners in Lunacy for the year 1901, seven deaths only are ascribed to syphilis, whilst in the quinquennial average of the assigned causes (either sole or combined) on admission the number is 341. Upwards of 1200 patients suffering from general paralysis are admitted each year, whilst no less than 1500 died of it in 1901. Yet this disease is said by some observers never to occur without syphilis. This is, however, by no means the only form of insanity which can be traced to syphilis, so that the want of record of this element of causation is indeed striking, and definitely points to a conspiracy of silence. How this difficulty is to be overcome is indeed a serious question; physicians have naturally an objection to hurting the feelings of patients' friends by stating syphilis as the cause on the death certificate, and this objection cannot readily be removed. Statistical evidence of any value could probably



only be obtained by a voluntary census of the existing cases in individual asylums and if possible of all asylums. Even this would probably fall far short of the truth.—*Journal of Mental Science.*

EPILEPSY AND EYE STRAIN.—What Reber,, *Pa. Med. Jour.*, proposes to show is that various cases of epilepsy have continued to have their seizures with uninterrupted frequency, notwithstanding the faithful use of carefully adjusted glasses, but that in a certain percentage of cases the seizures can be diminished in frequency, and sometimes made to disappear entirely by resorting to prism glasses and exercises, or as a last resort to tenotomy—and all this without drug treatment. He does not accept the enthusiastic claims of Stevens and Ranney, but thinks that the condition of the eye nevertheless is worthy of the most careful attention in many epileptic cases. He reports a number.—*Jour. A. M. A.*

DEATH IN EPILEPSY.—From a study of 220 deaths among epileptics Spratling suggests the cause and manner of death in the disease to be approximately as follows: Out of every 100 epileptics who die, about four do so as the result of a single fit; about 24 as the result of status epilepticus; about 12 as the result of some accident, including suffocation in bed; about 24 as the result of some disease of the lungs, chiefly tuberculosis; about 10 as the result of some organic disease of the heart; and about 26 from all other causes.—*Medical News.*

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## NEURO-ANATOMY.

A RARE FISSURAL BRAIN ATYPY.—Edward Anthony Spitzka, describes such a case in the October *Med. Critic*. The brain upon which the fissural atypy was found is that of Walter A——, a painter, who had served a term in the State Legislature. He died at the age of 30, from a cerebral tumor. The history of the case, as well as the



post-mortem findings, are recorded in a paper on "A Case of Nodular Tumor of the Corpus Callosum," by F. A. McGuire (1). The tumor was a firm, nodular mass of an aggregate volume about equal to that of a walnut. The callosum itself seems not to have been involved; the "main mass had, as it were, excavated a place for itself" at the expense of the callosal gyre, just dorsad and cephalad of the rostrum. There is no reason to believe that the existence of the tumor has any direct relation to the fissural and gyral peculiarities which this brain exhibits.

The brain had been preserved successfully, and aside from its clinical interest, has proven to be a rare and valuable specimen from the view point of cerebral surface morphology. While a number of interesting features have been noted, there is one exceedingly rare fissural atypy which the writer desires to present here, in anticipation of a later detailed communication. The atypy consists in *a complete interruption of the central fissure* (or Fissure of Rolando) *on both sides*, a condition so far recorded in but a single instance, that of the philosopher Chauncey Wright, described by Wilder (2), and noted on one side only in 14 other cases.

It is probable that such interruptions in the Rolandic fissure will now be found more frequently, since attention is called to the subject. The editor has seen this variation in his dissecting room exploration, but supposing they were not exceedingly rare, did not make record of them.

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## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

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PSYCHOPATHOLOGICAL RESEARCHES—Studies in Mental Dissociation with Text Figures and Ten Plates. By Boris Sidis, M.A., Ph.D., Director of the Psychopathological Laboratory. Published under the auspices of the Trustess of the Psychopathic Hospital, Department of the New York Infirmary for Women and Children.

This is a timely, interesting and instructive book of psychopathological researches, entertaining to the student of mind in general and specially instructive to the investigators in morbid psychology and the practical psychiatrist as well. These researches form a series of cases the investigation of which is undertaken with the object of studying the problems presented by the phenomena of functional psychosis. Out of a mass of material the author and his collaborators have selected a few cases typical of many others, each case standing for a type. As much as possible avoiding theories and principles and giving simply a *resume* of facts and experiments. "The more general aspects of these cases and the conclusions flowing from similar observations and experiments are relegated to another work soon to appear under the title of *Principles of Psychology and Psychopathology*. The cases are more in the nature of laboratory researches, each case standing on its own individual merits; they are all, however, intimately interconnected, representing various phases and stages of the processes of mental dissociation. The methods of work of this series, as well as of the series to come, have all of them been developed in the psychopathological laboratory,—the researches being carried on in the laboratory or at other places under its direction." Boris Sidis, William A. White, George A. Parker are the writers. G. E. Stechert of New York, London, Paris and Leipsic are the

publishers. This is such a book as the student of psychopathic problems and the psychiatrist can not well exclude from his library.

A CONTRIBUTION TO THE SURGICAL ANATOMY OF THE MIDDLE CRANIAL FOSSA, with Special Reference to Operations for the Removal of the Gasserian Ganglion. (From the Anatomical Laboratory of Washington University.) By Willard Bartlett, M.D., of St. Louis.

This is an especially valuable contribution, more valuable than its title would indicate, to the surgeon who operates for Gasserian Gangliectomy, because of the clear delineation it gives of the anomalous course and distribution of the middle meningeal artery found by the accomplished author.

A TREATISE ON DISEASES OF THE ANUS, RECTUM AND RECTAL COLON. By Dr. James P. Tuttle, A.M., M.D., Professor of Rectal Surgery in the New York Polyclinic Medical School and Hospital and Visiting Surgeon to the Almshouse and Workhouse Hospitals, etc. With eight colored plates and three hundred and thirty-eight illustrations. Published by D. Appleton & Co., New York, N. Y. 1902.

This excellent book is the ripe product of the brain and hand of an eminent and preeminently practical and successful worker in proctology whom we have known from his youth up, as a man of that energetic ability which achieves success in whatever field it chooses to expend its energies. A distinguished surgeon has said of the book that "it is written by a man who knows—it is thorough and complete, honest, strong and original" and this is just what one who knew him in his youth as a literary and scientific student and later as a medical student expected of his later achievements in medicine, and this book meets his expectations. It is a masterpiece from a master mind and hand in the domain of advanced modern proctological medicine and surgery.

All readers of this journal have need of this book

many of them in hospitals, some of them in private general practice and others to whom the fertile resources of this comparatively newly developed department of special medicine and surgery.

The chapters on examination, diagnosis, constipation and the nervous or hysterical rectum are especially well written and will prove interesting to the physician, general and neurological, and the remaining chapters of this interesting book will interest and instruct all.

**MELANCHOLIA SIMPLEX AND MELANCHOLIA TRANSITORIA SIMPLEX.** By Ralph Lyman Parsons, M.D., New York. Reprint from the *Medical Record*, March 15, 1902. William Wood & Company, New York.

This study is by an experienced alienist of long and large experience, one of the kind whom Esquirol commended, as having lived with the insane and therefore clinically learned of them. The author is the superintendent of Greenmont on the Hudson. We commend it to the readers of the *Alienist and Neurologist* for its sound medical rules of management and truthful portraitures of this mental disease so difficult to manage in general practice.

**A COPY OF PROGRESSIVE MEDICINE, Volume IV, December, 1902, Lea Brothers & Co., Nos. 706, 708 and 710 Sansom St., Philadelphia,** lies on our table, containing a remarkably thorough consideration of the most recent advances in the diagnosis and the treatment of Diseases of the Digestive Tract, including the liver, pancreas and peritoneum, by Dr. Einhorn.

Dr. Bloodgood on Anesthetics, Fractures, Dislocations, Amputations, Surgery of the Extremities and Orthopedics gives a thorough discussion well illustrated. William T. Belfield writes upon Genito-Urinary Diseases, including the treatment of prostatic hypertrophy. Dr. John Rose Bradford discusses the kidneys very fully. The section on Physiology by Dr. Brubaker is especially interesting, he describing the experiments and discoveries concerning life and vital reactions made by Professors Loeb and Matthews. Dr.

Harrington's chapter on Hygiene relates the wonderful results attained by the practical applications of recent investigations into the cause and prevention of such diseases as yellow fever and malaria. The Therapeutic Referendum presents all the facts regarding the most recent remedies and methods of treatment. Progressive Medicine is a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by HOBART ARMORY HARE, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, handsomely bound in cloth, 412 pages, 54 illustrations. Per volume, \$2.50, by express prepaid. Per annum, in four cloth-bound volumes, \$10.00.

AN NEW SIGN OF PLEURITIC EFFUSION IN CHILDREN.

By Samuel W. Kelley, M. D., Professor of Diseases of Children, College of Physicians and Surgeons, Medical Department, Ohio Wesleyan University, Pediatricist to the Cleveland General Hospital, to the City Hospital, to St. Clair Hospital, etc., Cleveland, O. E. B. Treat & Co., Publishers, 241-243 W. 23rd St., New York.

"After alluding to the well-known fact that the child attacked with pleurisy usually prefers to lie upon the affected side," the doctor says: "But if the pleura becomes distended with fluid, the child may turn and prefer the dorsal decubitus."

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ARCHIVES OF PEDIATRICS. E. B. Treat & Co., publishers, 241-243 West Twenty-third street, New York.

The January, 1903, issue of *Archives of Pediatrics*, the



first of the twentieth yearly volume of a journal, which is the oldest in the English Language devoted exclusively to the diseases of Infants and Children. The publishers promise that during the coming months its reputation of containing "the best by the best" will be fully maintained, and its readers may count upon receiving contributions from the leading pediatricists of the world.

REPORT OF THE INSPECTOR-GENERAL OF THE INSANE. 1902. Legislative Assembly, New South Wales.

A Case Illustrating the Neglected Results of Infantile Paralysis and the Treatment. By S. W. Kelley, M. D., Professor of Diseases of Children, Cleveland College Physicians and Surgeons, Pediatricist to the Cleveland General Hospital, to the City Hospital, Pediatricist and Orthopedist to St. Clair Hospital, Cleveland, Ohio.

The Passive Carrying Functions of the Arm: Its Importance, its Destruction, and an Operation for its Restoration. By Philip Hoffmann, M. D., St. Louis, Clinical Lecturer on Orthopædic Surgery, Medical Department of Washington University; Member of the American Orthopædic Association, etc.

Contributions to the Encephalic Anatomy of the Races. First Paper:—Three Eskimo Brains from Smith's Sound. By Edward Anthony Spitzka, M. D., Alumni Association Fellow in Anatomy, Columbia University. From the Anatomical Laboratory, Columbia, with 20 Text Figures.

The Rational Treatment of Movable Kidney and Associated Ptoses. By A. Ernest Gallant, M. D., Professor of Gynecology, New York School for Clinical Medicine; Attending Gynecologist McDonough Memorial Hospital, etc., New York.

Shall there be a Two Year's College Course? An Interview with President Butler, of Columbia University.

A Correct Report of the Case of Henry Krause, the Matricide. By Charles J. Aldrich, M. D., Lecturer on Clin-

ical Neurology and Anatomy of the Nervous System, College of Physicians and Surgeons, Cleveland; Neurologist to the Cleveland General Hospital and Dispensary; Neurologist to the City Hospital.

The One Hundred and Fifth Annual Report of the Board of Managers of the Maryland Hospital for the Insane, near Catonsville, Baltimore County, to his Excellency the Governor of Maryland, November, 1902.

The Management of Cerebral Hæmorrhage, and its Abortive Treatment. By William Browning, M. D., Brooklyn, N. Y., Professor of Nervous and Mental Diseases, Long Island College Hospital.

Anatomy, Normal and Pathological. Editor, Edward Anthony Spitzka, M. D., Alumni Association Fellow in Anatomy, Columbia University, Member of Association of American Anatomists.

Forth-third Annual Report of the Board of Directors and Superintendent of the Longview Hospital, Carthage, Ohio. To the Governor of the State of Ohio, for the year 1902.

Does Antitoxin Diminish Diphtheritic Paralysis? By J. E. Courtney, M. D., Assistant in Neurology, Denver-Gross College of Medicine, Denver, Colo.

Nervous and Mental Phenomena of Arterio-Capillary-Fibrosis and Atheroma. (Exhibitions of Specimens.) By J. E. Courtney, M. D., Denver, Colo.

Report of the Board of Trustees of the Eastern Michigan Asylum at Pontiac, for the biennial period, ending June 30, 1902.

Acute Osteomyelitic Arthritis of Infants. By Phil Hoffmann, M. D., of St. Louis, Clinical Lecturer on Orthopædic

Surgery, Medical Department of Washington University;  
Member of the American Orthopædic Association, etc.

The American College. An Address Delivered at  
Swarthmore College, November 14, 1902. By Nicholas  
Murray Butler.

Les Hallucinations Unilaterales. Par le Dr. J. Sèglas,  
Mèdecin de l'hospice de Bicetre. Paris, L. Maretheux, 1  
Rue Cassette.

Symmetrical Gangrene (Raynaud's) Versus Endarteritis  
Obliterans. James Dudley Morgan, M. D., Washing-  
ton, D. C.

Cough in Pulmonary Phthisis and its Treatment.  
By J. Leffingwell Hatch, B. S. C., M. D., F. R. M. S.,  
London.

Pseudo-Epilepsies, and the Relief of some Forms by  
Thyroid. By William Browning, M. D., of Brooklyn, N. Y.

The Nature and Pathology of Myoclonus-Epilepsy. By L.  
Pierce Clark, M. D., and T. P. Prout, M. D., New York.

The Dispensary or Home Treatment of Pulmonary  
Tuberculosis. By John F. Russell, M. D., New York.

Biennial Report of the Alabama Insane Hospitals, for  
the years ending 30th September, 1901 and 1902.

Columbia University, in the City of New York. An-  
nual Reports. Abridged Edition. 1902.

Renal Insufficiency in the Tropics. James Cabell  
Minor, M. D., Hot Springs, Ark.

Sub-Arachnoid Cocaine Anesthesia. By Dr. J. W.  
Cokenower, Des Moines, Iowa.

Weight and Diet in Pulmonary Tuberculosis. By John F. Russell, M. D., New York.

Neuro-Deformities. By James W. Cokenower, A. M., M. D., Des Moines, Iowa.

A Specimen of Diphtheritic Membrane by Samuel W. Kelley, M. D., Cleveland.

Mental Diseases, Forensic Medicine. Editor, Edward C. Spitzka, M. D.

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## ERRATA.

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Page 103, for "medical world in," read "world in medical," etc.

Page 107, for "on a prior," read "an *a priori*," etc.

Page 108, for "visits," read "visitors."



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## PUBLISHER'S DEPARTMENT.

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### THE DUCK AND THE DOCTOR.

A bogus physician, while walking one day,  
Observed by the roadside a duck,  
Which waddled away with no reckless delay,  
Being blessed with a small share of pluck.

"Hello!" said the scholar, "my fat, feathered friend!  
Despite your long bill, you've no brains;  
Such a bill I would send to the homes I attend.  
Do you ever go in when it rains?"

This persiflage finished, he hurried along,  
But was suddenly taken aback,  
And made use of a strong, naughty phrase—which was  
wrong!  
And the duck from a distance cried "Quack!"

When the fraudulent doctor this apt retort heard,  
He chased the poor creature with ire,  
For the casual word of the web-footed bird  
Had punctured his medical tire.

—ERIC MOORE, *New York Times*.

I FIND ALETRIS CORDIAL to be an excellent and palatable preparation. I have used it in cases of dysmenorrhea, irritable ovary, uterine congestion, leucorrhoea and endometritis, with the best of results. In a case of irritable ovary, that had resisted all treatment for four years, after taking for four days, the pain was entirely relieved.—T. B. DICE, M. D., Utica, Mo.

A PRACTICAL PHILANTHROPIST.—Miss Helen M. Gould, the eldest daughter of the late Jay Gould, is as



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thoughtful as she is philanthropic, and apparently lives to do good. Last year, instead of following her usual custom of giving turkeys on Thanksgiving day to the numerous employès of her estate at Tarrytown, N. Y., she varied the programme, in view of the scarcity of fuel and gave to each of the employès an oil stove, a barrel of kerosene, another of potatoes, a barrel of flour and a quantity of bacon. Miss Gould, like her late father, has a very practical turn mind.—*Leslie's Weekly*.

DEMOLITION OF "CRAZY TOWER" AT VIENNA.—The great city hospital at Vienna is to be rebuilt and the famous round tower in which the insane were confined will soon be demolished. It was built about 1780, and usually contained 270 inmates crowded into small cells, four in a cell. There are no windows and merely narrow slits in the thick wall for light and air, with no means of heating the rooms. Of late years it has been used as a store room.—*Journal A. M. A.*

COCA IN NERVOUS OVERWORK.—It is now nearly half a century since Angelo Mariana, a pharmaceutical chemist of Paris, France, cleverly blended the properties of the marvelous Coca leaves with a nutrient wine. This was prompted through the phenomenal action of Coca upon the Andean Indian, who is supported by its use through the most arduous trials to which mankind can be subjected. Long after this early adaption, the potent quality of the several alkaloids of Coca were made known to the physiologist, proving the wisdom of this selection, and Vin Mariana is accepted throughout the world by conservative physicians as a worthy tonic-stimulant, the merit of which has been confirmed through the severe tests of time.

EXTRACT FROM "TREATMENT OF DIPHTHERIA," by Dr. J. W. Pierce, in *American Practitioner and News*, July 15, 1902. If I can get perfectly fresh antitoxine I give it, but if not fresh I do not. Whether antitoxine is given or not, I give ecthol in full doses appropriate for the age of the pa-



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tient, every three hours, administered by the mouth. The entire fauces, larynx and pharynx, are sprayed with a mixture of ecthol and peroxide of hydrogen, three parts of the former to one of the latter, every fifteen to thirty minutes. Calomel in small doses is administered every hour until the bowels are thoroughly moved. Nourishing and supportive diet is given at short, regular intervals and everything done to make the patient comfortable in the way of supplying fresh air, etc. I have been using this plan, modifying it to suit the needs of each individual case, for several years, and cannot recommend it in too glowing terms to my fellow practitioners, knowing that it will give good results and entire satisfaction if it is carefully and effectively administered and carried out.

AN EVEN BREAK.—“Don’t you find it expensive running to a doctor so often?” asked Wellum of Sickum. “You see he always puts me on a diet, and I save enough on my meat and grocery bills to more than pay his.”

Dr. BUMGARDNER IN THE TRANSACTIONS OF THE Colorado State Medical Society, 1902, says that the following “patent” medicines contain the percentages given of alcohol:

Greene’s Nervine.....	17.2
Hood’s Sarsaparilla.....	18.8
Shenck’s Sea Weed Tonic.....	19.5
Brown’s Iron Bitters.....	19.7
Kaufman’s Sulfur Bitters.....	20.5
Paine’s Celery Compound.....	21.0
Burdock’s Blood Bitters.....	25.2
Ayer’s Sarsaparilla.....	26.2
Warner’s Safe Tonic Bitters.....	35.7
Parkers’ Tonic.....	41.6
Hostetter’s Stomach Bitters.....	44.3

—*American Medicine.*

THE MODERN DWELLING.—There is an instructive paper in the February *Delineator* on the home, treated from



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a hygienic standpoint. Notwithstanding what science has accomplished in the last decade or so, there is a disregard of the plainest laws of health in many households. Too little attention is paid to the choice of a habitation and its location. It costs people years of their lives to live in the large cities according to statistics, but for the most of them it is unavoidable. The article is the first of a series on health in the household, by Dr. Grace Peckham Murray.

HE DIED IN TOWN THIS SUMMER.—During his last illness his wife nursed him over the telephone from Newport, his doctor treated him by telegraph from Bar Harbor, and a letter written from the top of the Alps by his clergyman was read over him at the funeral.—*Life*. His funeral was directed by Marconigram from London.

THE TREATMENT OF INFLUENZA AND COUGHS.—We excerpt the following from the *Toledo Medical Compend* by David E. Bowman, M. D., Toledo, O., Professor of Obstetrics, etc., Toledo Medical College. "The elimination of the toxins is too frequently overlooked in these cases. Formerly, in their efforts to relieve the distressing symptoms, the profession have used remedies which produced stom-achic disturbances, arrest of secretions, constipation, etc. I find nothing better to overcome the congested condition, in these cases, than two Laxative Antikamnia and Quinine Tablets given every three hours. If needed, follow with a seidlitz powder or other saline draught the next morning, before breakfast. This will hasten peristaltic action and assist in removing, at once, the accumulated fecal matter. Heroin hydrochloride has been so largely used for coughs and respiratory affections that it needs little or no recommendation in this class of cases, but the favorable synergetic action of this drug used with antikamnia is, I believe, not sufficiently appreciated. Antikamnia and Heroin Tablets will be found useful by every practitioner, particularly during the winter and spring months. The antikamnia not only adds potency to the respiratory stimulant and expectorant qualities of the heroin, but it prevents the slight nausea which may at times follow its administration alone."

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MISSOURI STATE MEDICAL ASSOCIATION—CHANGE OF DATE OF MEETING.—St. Louis, Mo., Jan. 5th, 1903. The Annual Meeting of the Missouri State Medical Association will be held at Excelsior Springs April 21, 22, 23, 1903, instead of May 19, 20, 21, 1903. C. M. Nicholson, M. D., Secretary.

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from the first and the eruption and rough scaly surface is nearly healed and covered with a healthy, smooth skin. I shall continue to use it in all cases where it is indicated. —*J. L. Enos, M. D., Enos Div. Indian River, Narrows, Fla.*

THE ACTION OF CELERINA on the brain and nervous system is that of an exhilarant, relieving depressions, and lessening irritable nerve conditions. In cases of organic and functional lesions of the heart, an increased steadiness of pulse beat, and diminution of pulse variation are apparent.

“NONE OF THE various preparations of Cod Liver Oil have given as good results as Hagee’s Cordial Olei Morrhuae Comp. I am prescribing no other.”—*R. R. Barnes, M. D., Cleburne, Tex.*

ANEMIA AND NERVOUSNESS.—I have used Neurilla in cases of anemia and nervousness, and found it very excellent as a calmative and will continue its use.

CHARLES F. MYERS, M. D.

261 West 37th Street, New York City.

THE ST. LOUIS INSANE ASYLUM.—The Legislative Committee’s report on the condition of the St. Louis Insane Asylum calls attention to the fact that there are here herded together 1600 human beings unable to think or act for themselves, crying aloud to the Christian civilization of Missouri for better and more comfortable quarters, where they can be more humanely cared for and scientifically treated and says: “All the millions we may spend on ‘World’s Fairs’ will never make of our metropolis a ‘Greater St. Louis’, nor of our state a new Missouri, while this unfortunate class of our citizenship remains neglected.”

INSANE CREMATED.—On the 27th of January of this year fifty-four insane women perished by fire through the burning of the Colney Hatch Lunatic Asylum in England. The attendants did everything in their power to save the inmates, but owing to the inflammable nature of the structures and the criminally short supply of water, fifty-four out of 320 patients suffered death in the flames.

THE  
ALIENIST AND NEUROLOGIST.

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HISTORY OF THE EVOLUTION OF THE  
BRAIN.

SOME FURTHER FACTS CONCERNING THE BRAIN.

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By CHARLES H. HUGHES, M. D.,  
ST. LOUIS, MO.

Dean of the Faculty and Professor of Neurology and Psychiatric Neurology,  
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[*A Lecture to Students.*]

**I**N 1819, before these plates were made, Arnold, Reichert, Foville, Burdach and others had made important contributions to embryologic and fully developed brain structure. Burdach's book on the life of the brain was published as early as 1819, and Reil had already, according to the testimony of Edinger, practiced the hardening process and discovered the corona radiata, the nerve course of the tracts of the crura cerebri and their relation to the corpus callosum, "the lemniscus and its origin in the corpora quadrigemina, the lenticular nucleus, the island of Reil and many other parts."

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Note—This paper forms a chapter in the author's book on "Neurology and Neurology, Psychology and Psychiatry in Practice," now ready.

In his first lecture Dr. Ludwig Edinger, of Frankfort-on-the-Main, gives an interesting resumé of the advance of discovery and methods of study, bringing the record of work down to the days of Ramon y Cajal, Lenhossek, Nissl and the other men of mark in our time in neurocytology. This is of such interest that I abstract the essential part of the record.

"Up to about the middle of this century the most prominent methods of investigation were anatomical dissection with the knife and teasing out fibers from hardened specimens of brain with forceps. By the latter method Gall, Burdach, Reil, F. Arnold and Foville discovered much that was new. To Tiedemann and Reichert is due the chief credit of introducing the study of embryology, from which we have learned much concerning general morphological conditions.

In 1833 a delineation of the brain's evolution by Samuel Solly, one time Lecturer on Anatomy and Physiology in St. Thomas Hospital, appeared in England, based on his own and the researches of Willis and Vieussens, (the latter first having demonstrated (in 1864) the fibrous structure of the medullary portion of the brain), and those of Reil, Gall, Spurzheim, Vicq, d'Azyr, Rolando, Sommering, Serres, Tiedemann, Sylvius, Nepper and Van Leuwenhœck, the latter having first instituted microscopical examinations of the brain.

\* \* \* About this time Ehrenberg proved that the brain consisted of innumerable microscopic "tubulès."

Remak (1838) had given a more accurate description of the ganglion-cells, and Hannover (1840) had shown their connection with the nerve-fibers. After this Edinger states that "a simple process of teasing could never give the desired insight into the structure and arrangement of the central nervous system. To B. Stilling is due the great credit of originating and bringing into use a new method, viz., the preparation of thin sections, or rather, of whole series of sections, which are made in different but in definite directions through the organ to be examined. In a foot-note Edinger says: "Thin sections of the central nervous system had been made be-

fore Stilling's time (*e. g.*, B. Rolando, 1824), but the reconstruction of the organ by the combination of extended series of sections was first done by Stilling."

"The sections so prepared were carefully examined throughout, the pictures they presented combined, and thus the structure and arrangement of the central nervous system were determined. By means of this method and the studies which he instituted by its use, Stilling laid the foundation of the modern anatomy of the spinal cord, the oblongata, the pons and the cerebellum. On the 25th of January, 1842, Stilling froze a piece of spinal cord at a temperature of 13° R., and then, with a scalpel, made a moderately thin cross-section. 'When I placed this under the microscope,' he writes, 'and, with a power of 15 diam., saw the beautiful transverse striations (central nerve-tracts), I had found a key which would reveal the mysteries of the wonderful structure of the spinal cord. Not more joyfully did Archimedes cry out, "Eureka!" than I, at the first sight of these fibers.' "

Stilling's method was, up to within two decades ago, the one most used in investigations of the central nervous system. "It is rendered very much easier by the splendid hardening which these organs undergo in dilute chromic acid, or in a solution of chromic salts,—a discovery of Hannover and Eckhardt.

"The sections are made 'free-hand,' with a razor, or, better, with a microtome, which cuts much more exactly and enables us to make larger and more even sections. Welcker, Rivet, Weigert, Thoma, Gudden, Schiefferdecker, and others have been of service in constructing microtomes adapted to the purpose. We can now divide an entire human brain into an unbroken series of sections, less than  $\frac{1}{10}$  millimeter in thickness.

"These sections may be examined unstained. All that Stilling discovered was found in such unstained sections. It is better, however, to use staining fluids.

"To Gerlach is due the credit of first calling attention (1858) to the advantages to be derived from staining the sections in carmine. As time passed on, many new stain-

ing methods were devised, particularly with aniline colors (nigrosine, etc.).

"But it is only very recently (1883) that we have learned from Golgi a method which brings out ganglion-cells more distinctly than the old one of Gerlach. This method rests on a production of a deposit of silver salts in the cells and their processes. The course of the fibers in the central nervous system is not made much more distinct by staining with carmine. It is possible, however, by a method of staining with hæmatoxylin introduced by Weigert (1884), to color even the finest nerve-fibril a deep blue-black, and so, making use of Stilling's method, it is easy to trace the course of the fibers much farther than was formerly possible.

"The stained sections are, in accordance with the special instructions of Clark (1851), dehydrated by placing them in alcohol, and then cleared up in some ethereal oil or xylol. But unstained sections also reveal the course of the fibers if cleared up in xylol, as was done by Henle and Merkel. This, however, does not always succeed. Beautiful pictures may be obtained by using the gold staining methods of Gerlach, Flechsig, Freud, and many others. Also, by staining the nerve-fibers with osmic acid" (Exner).

Stilling's method has, up to very recently, been followed by most of the investigators of the latter half of the nineteenth century, but has been later succeeded by the method of Golgi, of which you are to learn much as you advance in the study of microscopic neuro-anatomy.

The revelations of brain evolution under the difficult and meager methods of investigation prior to the hardened brain slicings and the advent of the microscope were wonderful testimonials, as some of these illustrations show, to the indefatigable spirit of research of our forefathers on the field of neural embryology. But the later sections and microscopic discoveries of brain and cord and nerve, startle credulity and almost surpass the bounds of possible belief. They astonish us like the telegraph did our fathers and as the phonograph, graphophone, mimeograph and marconi-



gram surprise us now. Yet their revelations are astonishingly true. Science now places its penetrating finger upon the neurones, whose dwelling place is at the seats of perception, reflection and psycho-motor function, as we have already seen, in our survey of neurological research and as we shall yet see further in our progress of discovery along the pathway of the neuraxis. Electrical discovery too has aided us, especially in the direction of cerebral localization, which will engage our attention in another lecture. For by its means, with insulated electrodes, Fritsch and Hirtzig proved the focal electrization of the brain and Ferrier, Horsley and their followers have localized its psycho-motor functions, most of which have been confirmed by demonstration, pathological processes and associated cerebral symptoms.

There are some general facts concerning the brain which may profitably be recounted here, before we discuss the subject, as we shall, later on, more specifically.

#### BRAIN SIZE AND BRAIN WEIGHTS AND THEIR RELATION TO MIND CAPACITY.

The aggregate complexity of the nervous system seems greatest in what naturalists call the primates, or man and apes and the vertebrate animals. Invertebrates are considered by the same authority to have no brains, and the example of the sanguisuga, or common leech, the house fly, etc., are cited. The latter is an unfortunate illustration, for the fly's intelligence is revealed in various ways, not to the same extent as the ant and the bee, but sufficiently to indicate that it has an organ of limited intelligence, like the frog, the mosquito, etc. Even the leech, though he knows not when to let go, knows when and where best to hold on, as I once discovered when I got into a colony of them while in swimming in my boyhood days.

In man and apes the cerebellum is covered above and in front by cerebrum. In all the lower animals the covering is imperfect. In man and apes the cerebrum is highly convoluted, the convolution becoming shallower and less

complex as we descend the scale of vertebrate and mammal life and in imbeciles and idiots.

The weight of man's brain is heaviest in proportion to body weight, of all vertebrate animals.\* Man's brain is said to average ten per cent greater in weight than woman's, but the new woman knows a good deal and does not believe it. The average weight of the male brain is about 49 oz. Average weight of the female brain 44 oz. Heaviest normal male brain 65 oz. Heaviest normal female brain 56 oz. Lightest normal male brain 34 oz. Lightest normal female brain 31 oz. Idiots 23 oz. The composition of the brain is albumen, different phosphates, salts and water. The normal male brain averages in weight therefore from 34 to 50 oz. The normal female brain averages in weight from 31 to 44 oz.

Mental development and power is said to depend, all things being equal, upon the size and weight of the brain, and the complexity and depth of the convolutions of its gray matter. Fineness of texture has much, however, to do with quality of brain and the relation of brain weight and size to size of the frame with capacity. The power of the neurone of the gray cortex is not yet exactly measured. It has been said that Byron's hat was too small for the head of any of his contemporaries; Gambetta's brain was the smallest of any European statesman, while an American senator of ability (a man from Ind.) is said to have had the smallest head, compared with the heads of his colleagues (he wearing a 6½ hat), while the biggest heads were owned by Benjamin F. Butler and a colored porter at the Capitol. Professor Waldeyer reported to the Prussian Academy of Sciences measurements of the skull of the Philosopher Leibnitz, which was discovered a few years ago in repairing a church in Hanover. The cranial cavity measures 1,422 cubic centimeters, indicating a brain weighing 1,257 grammes, which is unusually small. The contour of the skull shows that Leibnitz was of Slavic origin.

Gottfried Wilhelm Leibnitz was born in Leipsic in 1646. He died in 1716. He studied law and in 1678 was made a counselor and member of the Supreme Court by the Duke of Brunswick-Luxemburg, but his fame was made by his writings on philosophical subjects.

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\* But not greater than in the insects.

Dr. James Morris records a brain weight of 67 oz. belonging to a bricklayer, who could neither read nor write. Gambetta's brain was light weight, being about 41 oz., while Byron's was heavy, being near 64 oz.

We know that the intelligence of the ant, the bee and the beaver are proverbial, while the eye of the fly is quite as perfect as that of the ox. Hydrocephalic children and some idiots have enormous heads. The heaviest adult male brain on record weighed  $68\frac{3}{8}$  oz. (Nancrede). A brain weighing 66 oz. belonged to the cranium of a Louisville baker, whose chief merit in the world consisted in his ability to make a fairly good loaf of bread, and the brain of an epileptic is recorded as weighing 64 oz., about 10 oz. more than Daniel Webster's. Cuvier, the naturalist, had a brain weight of 64.5 oz.; Abercrombie, the physician, of 63 oz.; Schiller, the poet, the same, while Agassiz, the American naturalist, had a brain weighing 53 oz. Goodsir, the anatomist, had a brain weight of 57.5 oz. Dupuytran's brain weighed but 50.7 oz.; Hughes Bennett, physician, 47 oz., Hausman, the mineralogist, 43.2 oz.

Brain of an idiot (Holden's *Anatomy*) 23 oz. (Nancrede), 31 oz.

Epilepsia and chronic insanities show high average brain weights, while in imbecility the general male average is below, the general female average is above, the general averages for the respective sexes according to Crowley Clapham's deductions from extensive research. In senility and in senile dementia the brain shrinks in size and loses in weight in both sexes. It is small in myencephalic and large in hydrocephalic idiocy. Clapham found brain shrinkage in general paralytics, but that was in chronic insane asylum cases, after the dementia stage. There is no evidence of loss of brain weight in the earlier stages of general paresis.

The commissural fibers of the brain enter into the composition of the corpus callosum, the anterior middle\* and posterior commissures bridging the third ventricle. Commissures compose the fornix, connect the two lateral hemispheres, striate bodies, etc.; they enter into the composition of the

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\*The middle commissure being of gray matter and not strictly a commissure, though it is called the gray commissure.

middle peduncles of the cerebellum, which in part serve to connect the two cerebellar hemispheres; and into the decussating fibers in the medulla and pons. "The longitudinal fibers and ganglia comprise five systems: The pedal system includes the pyramidal tract starting from the parietal cortex, the anterior cortical fibers from the frontal cortex, the lateral and posterior cortical fibers from the temporal and occipital cortex, and the caudate and part of the lenticular nuclei with the fibers descending from them; these fibers all pass through the internal capsule and pedes crura cerebri into the pons, where all terminate except the pyramidal tracts, which pass down to form the anterior pyramids of the medulla, which are continuous with the pyramidal tract of the cord. The tegmental system includes the thalami optici with radiating fibers connecting this system with the cortex, the longitudinal fibers of the tegmentum of the crus cerebri of either side with the imbedded nuclei (red nucleus, substantia nigra, corpus subthalamicum), the tegmentum of the pons, with the locus ceruleus, fibers connecting the tegmentum with the cortex, the superior peduncle of the cerebellum connecting the cerebellum with the tegmentum, the fillet, connecting the nucleus gracilis and nucleus cuneatus of the medulla with the tegmentum, the longitudinal posterior bundle of the pons, the brachia of the corpora quadrigemina and the reticular formation of the medulla. The system of central (ventricular) gray matter comprises the gray matter lining the ventricles, including the nuclei of the cranial nerves adjoining the fourth ventricles and the tuber cinereum on the floor of the third ventricle. The system of outlying cerebral ganglia comprises the corpora quadrigemina and the external and internal geniculate bodies. The cerebellar system comprises the nuclei of the cerebellum (corpus dentatum), (emboliform or wedge shaped nucleus, roof nucleus, etc.), with the cerebellar tracts (inferior peduncles of the cerebellum or restiform bodies, connected below with the olivary bodies and nucleus gracilis and cuneatus, and with the cerebellar tract and posterior median and external posterior columns of the cord).



Look at this brain. It is composed outside, of cineritious or gray matter, made up of basal ganglia, cortex, corpora quadrigemina, geniculate bodies, ependyma or lining of the ventricles, etc., nerve cells and connecting fibers or communicating neurones; within, its white matter is made up of neurones forming longitudinal and commissural fibers called medullated nerve fibers. The neurones receive, store up, and manufacture nervous energy and the nerve fibers transmit nervous energy and nervous impulses and impressions. The brain is covered by these three membranes or meninges, first, internally, the pia mater, which covers it closely, next the serous membrane or arachnoid, and the external fibrous membrane or dura mater. The arachnoid bridges over the large fissures of the brain covering subarachnoid fissures filled with cerebro-spinal fluid. The ventricles of the brain are continuous with the central canal of the cord and the subarachnoid spaces. They are lined with a layer of ependymal glial cells and filled with cerebro-spinal fluid. The brain is continuous with the cord, its gray matter becoming internal and its white matter becoming external.

It is the function of the brain in its cerebral cortex to receive mental impression, conduct intellection processes, evolving and expressing emotion and thought. Reception of mental impression and conscious appreciation of sensations are here located. They reach the cerebral cortex through the nerve nuclei, corpora quadrigemina, tegmental system, occipital and temporo-sphenoidal cortex, and the peripheral communicating sensory nervous system. The cortex of the brain initiates voluntary motions, including speech, and receives conscious and unconscious impressions from without it. This takes place in the mid-fronto-parietal cortex or psycho-motor area and is expressed in connection with the motor nerves and pyramidal tract. The brain produces and regulates bodily heat (caudate nucleus, tuber cinereum). Its medulla maintains respiration, inhibits the heart's action and initiates and maintains deglutition and vomiting, accelerates or inhibits peristalsis and the various visceral operations are increased or diminished by the cerebral cortex, as urination,



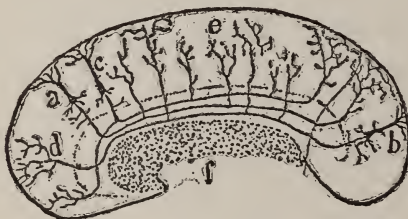
defecation, etc. Complicated movements and coordinate movements take place through the cerebellum.

Consult your anatomies and physiologies here and dictionaries and medical encyclopedias on the subject of brain function often in connection with this course.

Sajous attributes important brain-regulating functions to the pituitary body.

#### ANTERO-POSTERIOR SECTION THROUGH CEREBRUM.

FIG. 112.

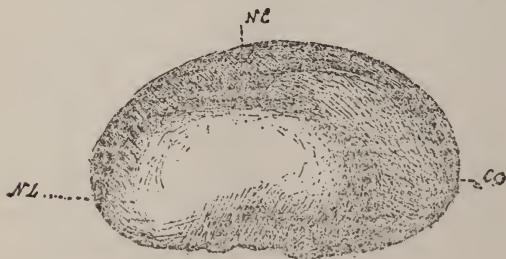


Showing association neurones passing from frontal to occipital lobe and manner of connection of pyramidal cortex neurones. A, C, B, a terminal axone at D, collaterals of association axones at E, and cut ends of crossing corpus callosum fibers at f. (After Ramon y Cajal.)

This illustration was shown farther forward in this course of lectures.

FIG. 113.

*Relations of the Basal Ganglia Separated, with their faces external (left hemisphere). NC, Caudate Nucleus; NL, Lenticular Nucleus; CO, Optic Thalamus. after Ch. Fere.*



— Rapports des ganglions centraux isolés par leur face externe (hémisphère gauche). — NC, noyau caudé; — NL, noyau lenticulaire; — CO, couche optique.

## ADDENDUM.

The London *Lancet*, of November 29, 1902, referring editorially to the weight of the brain of man, analyzes an interesting article by Dr. F. Marchand, which appeared in the *Journal of the Scientific Society of Saxony* (vol. xxvii, p. 389), and an abstract of the same, which may be found in the *Centralblatt für die Physiologie* (1902, p. 294). Dr. Marchand has weighed the brain in 1234 cases, usually immediately after its removal from the body and whilst still enclosed in the dura mater. The subjects were Hessians, and the results which he obtained may be briefly stated as follows:

The mean weight of the brain in the male sex between the ages of fifteen and eighty years was 1400 grammes or  $43\frac{3}{4}$  ounces, apothecary weight, and in females it was 1275 grammes. The brain in 84 per cent of all adult males between the ages of 15 and eighty years weighed between 1250 and 1550 grammes; in about 50 per cent it weighed from 1300 to 1450 grammes; in about 30 per cent it was over 1450 grammes; and in only 20 per cent under 1300 grammes. In women 91 per cent of all the adults had a brain weight between 1100 and 1450 grammes, 35 per cent weighed 1200 to 1350 grammes, 20 per cent over 1350 grammes, and 25 per cent below 1200 grammes. Dr. Marchand found that the brain weight at birth doubled in the course of the first nine months of life, and trebled before the expiration of the third year. After this date the increase was much slower, and slower in females than in males. Its definite or ultimate weight was reached in males at about the nineteenth or twentieth year, and in females from the sixteenth to the eighteenth year.

The diminution of the mean weight of the brain which is due to the supervention of senile atrophy occurs in males in the course of the eighth decade, and in females of the seventh, though without doubt great individual differences are observable. The increase of the mean weight of the brain in childhood follows the growth of the body generally till it reaches a length of 70 centimeters inde-

pendently of age and sex, but from this point onward it becomes irregular and is always smaller in females. In adults there is no constant relation between body weight and brain weight. Still, the mean weight of the brain in males of short stature (from 150 to 160 centimeters) is rather less than those of the average height, and the same holds good for women under 145 centimeters. The smaller size of the brain in women is not dependent on the lower stature, for the mean weight of the brain in women is without exception smaller than that of males of equal height. The conclusions of Dr. Marchand are drawn from data which are contained in numerous statistical tables.

#### DESCRIPTION OF PLATE.

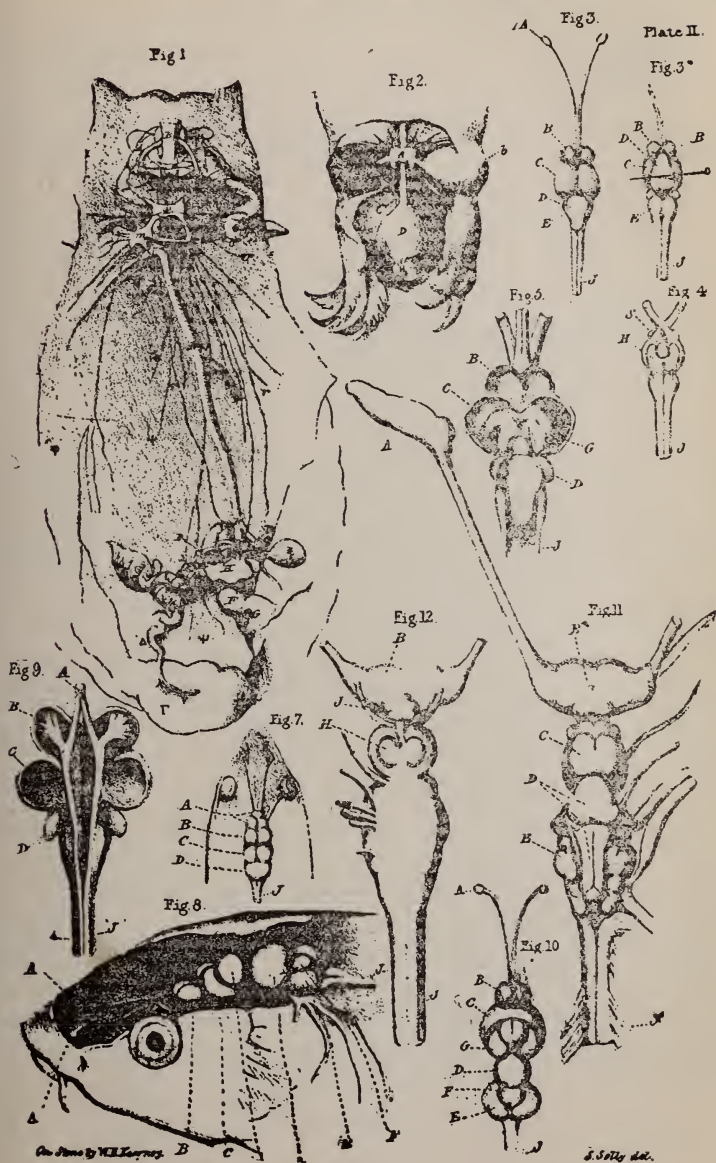
In this Plate will be found, first, representations of the nervous system of two genera of the mollusca. Fig. 1. The *aplysia fasciata*, or sea-hare, and Fig. 2, the *sepia officinalis*, or cuttle-fish. Second, The cerebral ganglia of the lowest orders of the vertebrata as regards intellectual endowment, viz., the fish: the first forms represented, namely, Figs. 3, 3\*, 4, are those of the whiting, and have been selected for their simplicity; the two next, are from the brain of the cod, whose brain being perfectly similar to the whiting, a view of the more internal parts has been introduced, as carrying the same point of observation a little further on. From the cod we advance by the eel, Fig. 7, and carp, 8 and 9, to the more concentrated form of the skate, Figs. 11 and 12.

Fig. 1. The *aplysia fasciata*, or sea-hare. The digestive organs removed, excepting *A*, *A*, the fleshy mass of the mouth, raised, as well as the upper part of the œsophagus *B*, to show the anterior ganglion *c*, situated beneath the four pairs of nerves which it gives, and the two threads which unite it to the brain *E*. *I*, *I*. The penis. *m*, *m*. The two lateral ganglia. *n*, *n*. Their filaments of union with the brain. *o*. Their superior filaments of union. *P*. The inferior. *q*, *q*. The uneven number of nerves which are the result. *r*, *r*. The two large nerves which they give off to form the fourth ganglion *R*. *F*. The heart. *G*. The auricle. *H*. The course of the great artery, *L*. The commencement of the artery of the stomach. *M*. Of that of the liver. *N*, *N*. The great artery. *P*, *P*. Its branch to the organs of generation. *Q*. That to the operculum. *T*. That to the parts on the left side. *U*. That to the penis. *V*. That to the straight parts of the head. *X*. That to the anterior parts. *Y*. Its termination at the mouth. *Γ*. The ovary. *Δ*. The oviduct. *Z*. Its appendix. *⊙*. The testicle. *ℑ*. The epididymis. *ε*, *ε*.

A NEURAL ILLUSTRATED REMINISCENCE.

NERVOUS SYSTEM OF TWO GENERATIONS OF MOLLUSCA.

A Plate from Solly, made in 1836.





The common duct of generation.  $\xi$ . The bladder.  $\Sigma$ . The body in form of a bunch of grapes.  $\Phi$ . Lateral muscular portions, principally longitudinal. (Cuvier, *Annales du Museum d'Histoire Naturelle*.)

Fig. 2. Cuttle fish.

- a*, Supra-oesophageal ganglion or brain.
- b*. Eye.
- c*. OEsophagus.
- d*. Mouth.

The following letters refer to the same parts in the remaining figures in this Plate.

- A*. Olfactor ganglia.
- B*. Hemispherical ganglia.
- C*. Optic ganglia.
- D*. Cerebellum.
- E*. Branchio-gastric ganglia, or olivary bodies.
- F*. Auditory ganglia, or posterior pyramidal bodies.
- G*. Posterior optic ganglia, or testes.
- H*. Tuber cinereum.
- J*. Spinal cord.
- S*. Decussation of the optic nerve.

The letter *J* has been put by mistake to the pituitary gland in Fig. 12.

Fig. 3. Brain of the whiting, the size of life, seen on its upper surface.

Fig. 3\*, The same; the cerebellum being turned up, and the two olivary bodies or brancho-gastric ganglia displayed.

Fig. 4. The brain of the whiting seen on its under-surface, exposing the decussation of the optic nerves *S*, and the tuber cinereum *H*.

Fig. 5. The brain of the cod, the natural size. The optic tubercles, which are hollow, are everted, and two smaller nodules, which are possibly analogous to the posterior of the quadrigeminal bodies in man, or the testes, brought into view.

Fig. 7. The brain of the eel seen from above.

Fig. 8. Lateral view of the brain of the carp in its natural position in the skull.

Fig. 10. Brain of the same fish removed from the skull and seen from above.

Fig. 9. From Serres's, *Anatomie Comparee du Cerveau*. The brain of the cod-fish, unfolded to expose the continuation of the spinal cord and its connection with the olfactory nerves.

Fig. 11. The brain of the skate removed from the skull and seen from above.

Fig. 12. Brain of the skate seen on its under surface.



# MIXOSCOPIC ADOLESCENT SURVIVALS IN ART, LITERATURE AND PSEUDO-ETHICS.

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By JAS. G. KIERNAN, M. D.,

CHICAGO.

Foreign Associate Member of the French Medico-Psychological Association;

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**A**T puberty, according to Lombroso,\* exaltation flings the nervous system into a turmoil fatal to weakness, but raising strength to a vertiginous height, because at this complete organism transformation, psychic centers suffer. During this turmoil latent energy, hitherto dormant, is, by emotional shock, forced as temperament tends. Fertile association leads to extended evolution of a more active organization. These phenomena, transitory among normal beings, occur on a large scale in geniuses, and the mentally morbid, particularly among sexual psychopaths. Impressions received by sexual psychopaths during puberty thereafter tinge mentality.

Here Lombroso, as so often elsewhere, lacks analytic psychology, failing to recognize that man is not merely compound in structure, but likewise complex in mentality.

The "ego" to him is a fixed unity, whereas, as Ribot† shows, it oscillates between perfect unity, absolute incoördination and intermediate degrees, without demarkation between normal and abnormal health and disease, the one

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\* *Alienist and Neurologist*, 1902.

† Works, Humboldt Edition.

trenching upon the other, else it ceases to be. The "ego" is the temporary cohesion of clear states of consciousness, others less clear, and physiological states (though not entering into consciousness) more effective than the conscious states. The material substratum of the "ego" is constituted by cortical eras exclusively connected with associating tracts, having little direct connection with a bodily periphery, and subsidiary associating tracts bound into the higher unity of the cerebral hemispheres.

Disturbance of the intricate relations here involved is necessarily accompanied, as E. C. Spitzka\* has shown, by disturbance of the "ego," or may render the "ego" an impossibility. On accurate connection of projection areas (passing outward to the periphery) with projection areas and of these with abstraction areas logical correlation depends. Correction of errors is possible only by inhibitions exercised by association fasciculi.

Correction, with approaching maturity, is delegated to the abstraction field, with functions performed automatically. Constitutional disturbances, fatigue for instance, break up associations constituting automatism. The individual then becomes actively conscious of control of conceptions constantly received from sense impressions. The factor of balance between associations is will or volition. This final act of consciousness, complexly coördinates states, conscious, subconscious or unconscious (purely physiologic), expressed in action or in inhibition. Volition is an effect, not a cause.

Into the subconscious and unconscious factors, enter conditions of various organs and results of training. These last, at first conscious, as in the child's learning to walk, speak, be modest or cleanly, are finally transferred to the subconscious spheres and become automatic. The higher the mental state, the greater the transference.

The conscious mental process indicates, as Herzen† has shown, imperfection of the cerebral organization, and an unusual activity which deranges the equilibrium, the innate

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\* *Journal of Nervous and Mental Diseases*, 1877.

† *Journal of Mental Science*, 1887.

or previously acquired automatism, and does not find a well-formed mechanism ready to discharge it. It is transitory between an inferior and a superior cerebral organization, expressing novelty, incertitude, hesitation, growing astonishment, imperfect association and incomplete organization, slowness and inexactness in transmission, loss of tenure in reaction phenomena. Nervous paths are not distinctly enough traced to permit, without destruction in the final effect, reflex movements or reflex ideational sensations. Degree of the conscious mental process determines the amount of attention. Attention is hence comparatively slight in the ape, hereditarily defective, and philistine, since the power of new ideas to create uncertainty depends on the absence or presence of preformed paths.

Balance of the "ego" is disturbed when strains unduly obtrude the unconscious or subconscious upon the consciousness. When balance of the "ego" is disturbed, primitive instincts rising prominently to the surface take unexpected directions. Excessive spirituality, as Spurgeon years ago pointed out in a sermon, is by a strange yet natural law next door to sensuality. Closely connected with salacity is religious excitement, as also is ecstasy.\* Religious ecstasy lacks nothing of what makes up sexual love, not even jealousy.† Religious and sexual emotional states at the height of their development have a harmony in quantity and quality, which can act vicariously. This is denominated religiosity. Love of pain to self or others may be an expression of this. Algophily (love of pain) of the passive type often finds expression in religious or other flagellation.‡

At adolescence, automatic action is not perfectly organized. For this reason, and because of the struggle for existence which occurs (under the law of economy of growth) between the cerebral and reproductive systems, subconscious states incessantly obtrude upon consciousness. From this results fear of the unknown. This, with consequent introspection, produces suspicious tendencies and

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\* *Psychology of Sex*, Vol. II.

† Krafft-Ebing: *Psychopathia Sexualis*.

‡ Kiernan: *Medicine*, 1901,

pessimism. These last arise from anxieties resultant on association instability, dependent on lack, non-, or irregular use of association fibers.

Pessimism, as Magalhaes\* has shown, is nervous instability with alternations of irritability and prostrations. The subject is supersensitive. Impressions are intense, and, causing prolonged reactions, are followed by exhaustion. Pessimism is a general hyperesthesia, resulting in an excess of suffering. From instability and hyperesthesia result discord between feelings themselves, between the feelings and the intelligence, between the feelings, the ideas, and volitions. Discord between feelings shows itself in a great variety of paradoxes, contradictions, and inconsistencies. To the pessimist, possession of a desired object does not atone for former privations. Pain or unsatisfied desire is replaced by *ennui*. With inability to enjoy what he has, are coupled extravagant expectations regarding that which he does not have. He is extremely susceptible both to kindness and contempt. He passes suddenly from irritability to languor, from self-confidence and vanity to extreme self-abasement. This intense sensitiveness results in intellectual instability, since it involves a great vivacity of the intuitive imagination, which favors extravagant ideals lacking in solid representative elements. A gap opens between the ideal and the actual. He can never realize the ideals he pursues, and so his feelings are of a somber hue. From this result doubt, and distrust of rational objective knowledge, expressed in occult fears and belief. It assumes another form in extreme subjectivism. The pessimist is haunted by images of tiny religious scruples, suspicions, fears and anxieties resultant in alienation from friends, seclusion, misanthropy. He is incapable of prolonged attention. He has refractory attention and feeble will. This results in inaction, quietism, reverie, self-abnegation, abolition of personality, annihilation of will, amounting sometimes to poetic or religious ecstasy. Pessimism is frequently associated with morbid fear of death (thanatophobia).

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\* *American Psychological Journal*, 1893.



The mental state of puberty and early adolescence, hence, is tinged with undue introspective anthropomorphic egotism, because of associating fiber inability to exercise the inhibitory influences constituting the secondary "ego." This recognizes the rights of others in matters of opinion, and that the liberty of one individual ends only where that of another begins.

Sexual neurasthenia and hebephrenia are survivals of the adolescent mental state after adolescence. Hebephrenia is a petrification of that mental state which led educators to designate the lower college classes freshmen and sophomores. Intense vanity, selfishness, religiosity, shallow sentimentalism, domineering tendencies and algophily (which seeks satisfaction in pain, whether in cruelty toward others or self-torture) are dominant characteristics of the mentality of early adolescence.

Algophily may find expression in the hazing which sophomores give freshmen, or in mixoscopic conceptions which prudishly gloat over imaginarily coarse aspects of sexuality in others. These last occur frequently in women in village communities, where they find expression in gossip. While necessarily controlled by early refined environments, such environments are absent in the uncultured rural and urban middle class and the plutocracy sprung from these (which despise alike the cultured and the laborer) who are steeped in the pseudo-ethics of the Jewish Pharisees: Alcoholophobia, sabbatarianism, blatant "philanthropy," religiosity ("make long prayers and devour widows' houses"), prudish cant; employment of female lobbyists while denouncing fiercely sexual manifestations of affection. This last mixoscopia Christ condemned when he said much should be forgiven when a woman loved much, in the case of the woman taken in adultery, and in his denunciation of the Jewish "get" or divorce which made wives slaves of male caprice. These Pharisaic pseudo-ethics still dominate the uncultured rural and urban plutocratic and middle class. Among them:

The sin forgiven by Christ in Heaven  
By men is cursed alway.



Goethe\* drew a picture of this middle class mixoscopia in "Margaret at the Fountain":

"How scornfully I once reviled,  
When some poor maiden was beguiled;  
More speech than any tongue suffices  
I craved, to censure other's vices.  
Black as it seems, I blackened still,  
And blacker yet was in my will;  
And blessed myself, and boasted high."

Mixoscopia underlies that anesthesia of jealousy which occurs in voluptuaries. Cerebral and sexual organ excitation kills, as Moreau† (de Tours) remarks, that moral element of passion, love, properly so-called. Sexual sensibility may still preserve some energy. Appetite may still make it felt, but, to satisfy, former excitants no longer suffice. Recourse must be had to extraordinary incitants that would not hitherto even be conceived. The emotional altruistic love is no longer in play. The intelligence, regretting pleasure, remembrance of which it retains, endeavors to recuperate it under any form possible.

From this results what Moll‡ denominates mixoscopia. This may be mental, or may require physical evidence. Unfaithfulness or caprice of a loved one increases, as Stefanowski§ shows, desire. Images of caresses lavished on a rival reawaken with intense acuteness, in a man, the remembrance, as Bourget§ remarks, of like caresses lavished on himself. By a singular detour this remembrance acts like a luxurious dream, and jealousy leads to desire. This condition attains its height in an algophily, where the passive algophilist has an atrocious pleasure in seeing the beloved enjoyed by a more favored rival. To love with the heart is, Bourget remarks, to find the supreme happiness in the absolute gift of one's self, in complete self-abdication and then pain even that the loved object inflicts becomes a joy. To a lover who loves with all his heart,

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\* Taylor's Translation.

† *La Psychologie Morbide*.

‡ *Libido Sexualis*.

§ *Alienist and Neurologist*, 1893.

known unfaithfulness has this sweetness—it enables him to evince his love in pardon.

These mixoscopias take either the passive algophily type, in which personal pain is the chief excitant, or active algophily, in which pain, real or imaginary, of another is the excitant. These occur in auto-erotism, without chastity violation in the ordinary sense, and their sexual origin may not be recognized. In such auto-erotism, the excitant influence of a full female bladder must be recognized. The bladder is the most delicate esthesiometer in the body. Contraction of the bladder follows on the slightest stimulation of a sensory nerve.\* Conditions which raise blood pressure and excite respiratory centers produce an immediate measurable effect upon the bladder. When Mosso brought a plethysmograph in contact with a female bladder, even a slight touch on the back of the subject's hand produced a notable contraction of the bladder. Whenever the subject was spoken to, or made the slightest mental exertion, there was a similar contraction. Such contractions, more delicate than those of blood vessels, are not paralleled by other parts. According to Born, the bladder is the mirror of the soul. It is equally correct to say that the soul, to some extent, mirrors the bladder. The fainter vesical contractions do not play a recognizable part in emotion, but in a somewhat higher degree of intensity play a well recognized part. "A nervous bladder," as Goodell puts it, "is an early symptom of a nervous brain." Bladder contraction takes part in various emotional states of fear, anxiety and suspense. Its extreme spasmodic form (urinary incontinence) is very common in children, and by no means uncommon in young women (quite apart from pregnancy or the results of pregnancy), though rare in men. This bladder affectability interferes, to some extent, with employment of women in factories and offices, and underlies the frequent micturition of girls employed as stenographers, typewriters, clerks, etc. Erethismic conditions resultant on such disturbance of the "ego" may produce paradoxical sexual instinct, in which sexual frigidity is combined with intense sexual preoccupation.

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\*Havelock Ellis: *Man and Woman*.

Sexual exhaustion of this mental type, of which masturbation is mostly an outcome rather than cause, produces the social "purist" who takes microscopic views of normal sexuality, the pervert and the morbidly jealous woman. Very frequently all three unite on a hereditarily defective soil, generally intensified by resultant pseudo-religious environment. Such conditions likewise occur from the break-down resultant on stress during puberty and adolescence. Much egotistic obtrusiveness in matters of opinion, religiosity, alcoholophobia, and other pseudo-ethics, shown by social "purists" and "reformers," is due rather to the break-down of adolescence than to masturbation. Anstie,\* nearly thirty years ago, pointed out that unsocial, solitary life (leading to masturbation) joined with an evil influence from unhealthy ambition, frequently prompts to premature false work in literature and art, producing a phase of literature that Leon Bazalgette† denominated "mental onanism," which, according to Havelock Ellis,‡ is an expression of auto-erotism.

A quarter of a century ago I pointed out§ that day-dreams of the normal adolescent readily become morbid. The day-dream, as Havelock Ellis|| shows, a mental process of great importance in the auto-erotic field, is much cultivated by refined, imaginative, chaste young men and women, likely to be repelled by masturbation. In them, under such circumstances, it is a normal inevitable outcome of the play of the sexual impulse. It may become morbid, and is never healthy when indulged to excess by refined young people with artistic impulses. To these it is in the highest degree seductive and insidious.

The great danger is the tendency of day-dreaming to withdraw the dreamer from the actual world, thereby destroying, disturbing or preventing proper development of the secondary "ego." Day-dreams, hence, assume, as I have elsewhere pointed out,¶ prominence in the early

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\* Neuralgia.

† *L'Esprit Nouveau*.

‡ *Psychology of Sex*, Vols. II and III.

§ *American Journal of Insanity*, July, 1877.

|| *Psychology of Sex*, Vol. II.

¶ *Alienist and Neurologist*. 1889.

mentality of paranoia. The danger is more insidious because of natural reticence about the day-dream, as an intimate and (as an ideal) sacred part of the inner personality. Dominated by the day-dream, the unbalanced individual with unrestrained primary ego, obtrudes it on the community as a "reform."

Anstie's picture is that of an obtrusive, egotistic adolescent. The unsocial, solitary life, the unhealthy ambition, the premature false work in literature and art mark the adolescent, marred by the storm and stress of adolescence. Bulwer Lytton's\* poet who "has great sympathy for suffering humanity as represented by himself" is a type of adolescent survival frequently in evidence in journalism, art, literature, theology, and even in science. The storm and stress of adolescence in women restrained by philistine conventions (which, as in Goethe's Margaret, develop mixoscopia) are vividly portrayed in an autobiographical sketch by a refined married lady,† who remarks, anent the art phase of the sexual impulse: "The art craze is one modern phase of woman's sexual life. The great centers of Italy were simply overrun with girls studying art, most of whom had little talent, but who had mistaken restlessness from the first awakening of the sex impulse for genius. It must have been terribly hard for girls who had burned their boats and chosen art as a career, to have added to the repression of their natural desires the bitterness of knowing that in their chosen walk of life they were failures. The constant drudgery combined with disappointment and finding that art alone does not satisfy is so paralyzing. Besides, sex satisfaction is followed by exaltation of the mental faculties, with no depressing reaction such as follows pleasure excited by mental causes alone."‡

The restless play of the sexual impulse here portrayed crowds universities with women, finding distorted expression in a prurient prudery, which interferes with proper scholarship in co-education. Mixoscopia from the conventions de-

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\* The Parisians.

† *Alienist and Neurologist*, Vol. 22, p. 512.

‡ *Psychology of Sex*, Vol. III.



scribed emasculates science, art and literature, requiring such subjects to be purified, as prudes, in the time of Mrs. Trollope,\* purified the moral atmosphere by putting piano and table legs in pantalettes.

This restless, unrecognized play of the sexual impulse (present, in callow male and female newspaper sensation-alists,) seemingly looms up in three women during the last two decades. In two, other factors were present, though all three cases bear a superficial resemblance. Intellectually, Marie Baskirtsheff† looms above Mary McLane‡ as infinitely as the latter above Viola Larsen (who leaped into notoriety by imitating her). They cannot be placed in quite the same category. Viola (who stole a physician's horse and buggy to secure the titillation of being a thief) found the chase "delicious, beautiful, wonderful. The blood tingled in the veins," and she was "wild, intoxicated with pleasure." Play, as Froebel points out, is the normal child's work. Viola, hence, scorns, with the precocity of the defective, the "foolish games of other children." When nine years old, she "burned for fame and wrote." The theft was an expression of the kleptomaniac algophily of Lacassagne.§ The police and the physician whose buggy was stolen took this view. Later, she wrote mixoscopic letters to a schoolmate, whom she called up by telephone to find how the latter felt when she received the letters. The schoolmate, from offended modesty, naturally declined to respond, thereby disappointing Viola of the expected thrill. The letters were apparently due to suggestion from the newspaper éclat given a recent Chicago epidemic of mixoscopic pseudonymous and anonymous letters. Viola was a "genius" entitled to "genius" irresponsibility, popularly allowed to "genius" eccentricities. Judge Tuthill, who had read her writings, told her to go home, get her absurdities out of her head, and mind her parents. "She was a very foolish girl, who had neither ability nor education sufficient to write." Her love notions exhibit the

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\* Domestic Manners of the Americans, 1830.

† Diary.

‡ The Story of Mary McLane.

§ *Jour. de Med. de Paris*, 1896.



prying frenzy which makes the adolescent mental horizon one vast interrogation point as to trivialities. She fancied herself in love, but it was "the glitter of brass, not the shine of gold." The mother (a rather stolid, albeit, hysterical Scandinavian), while much puzzled by her daughter (as a hen with a duckling she has hatched), is rather proud than otherwise of her daughter's antics.

In London an attempt has lately been made to check thefts of this kind by birching the gluteal region of women detected in them. This must intensify, mentally and physically, the sexual impulse, and act as an incitant rather than a deterrent.

The foundation of this mental state, Havelock Ellis remarks, is an exaggeration of the joy of being plunged among the waves of that great primitive ocean of emotion which underlies the variegated world of everyday life, and pain (a pain often deprived, as far as possible, of cruelty, though sometimes by very thin and feeble devices) which is merely the channel by which that ocean is reached. This emotional intoxication exerts irresistible fascination on paranoiacs and hysterics. Nietzsche\* regarded this kind of intoxication as of great significance in life and art, because it gives consciousness of energy and satisfaction of craving for power. Desire for "love," exhibited by Viola Larsen, has, through this theft and its consequences, found, by the psychologic process described, temporary satisfaction.

That Viola Larsen's mixoscopia necessarily indicates individual depravity cannot be maintained. The refinement veneer of the twentieth century sits very thinly over the Rabelaisian coarseness of the eighteenth and early nineteenth. Zola's naturalism, in even more pungent sexual argot appears in Smollet, in the "furtively sniggering over indecency" of Sterne and even in Richardson, the favorite of the prude. Today when insanity attacks a modest, refined woman, sexual argot is uttered with startling fluency. Here modesty has crushed sexual argot into the subconscious, to be revived under cerebral storm and stress. For

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\* Ireland, *Alienist and Neurologist*, 1901.

picturing this, Shakespeare has been castigated by Collier,\* in satiric contrast with Euripides: "Phaedra keeps her modesty even after she has lost her wits. Had Shakespeare secured this point for his young virgin Ophelia, the play had been better contrived. Since he was resolved to drown the lady like a kitten he should have set her swimming a little earlier. To keep her active only to sully her reputation and discover the rankness of her breath was very cruel." Only clerical mixoscopia could find the impure in the insanity of Ophelia.

The rural middle class is of coarser fiber than the urban, as pictures of this class by Brockden Brown,† of Balzac,‡ of Charles Reade,§ of Zola,|| and of Thomas Hardy¶ demonstrate. Reade (a naturalist limited by English prudery and untrained psychology) remarks through the graphologist Undercliff: "The country is no better than the town, for all it looks so sweet with its green fields and purling rills. There they sow anonymous letters like barley. The very girls write anonymous letters that makes one's hair stand on end."

This coarseness survives particularly in jests at old maids. Folklore contempt for the old maid still strongly obtains despite the allegedly high status given chastity by Christianity. Christianity, partly from its tinge of Oriental asceticism,‡ partly from resultant contempt for women, partly from mystic exaggerations of Eve's sin, partly from an anti-social trend resultant on persecution (which cropped up later in the Covenanters\*\*), lowered woman until the rise of the Madonna cult. Christianity, which taught that earthly residence was of no account, taxed with impurity sexual union outside of sacramental marriage, and made the mystic union of nun and monk with God an ideal, failed thus to impress the popular mind with more than that cant which

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\* Short View of the English Stage.

† Arthur Mervyn.

‡ The Peasantry.

§ Foul Play.

|| La Terre.

¶ Jude the Obscure.

\*\* Scott: Heart of Midlothian.

thinly veneers the folklore view of chastity.\* Under it the old maid is still subject to scurrile jests.

In Shakespeare's† time the populace held that unless older sisters danced barefoot at the marriage of a younger they would be old maids and "lead apes in hell." This was the punishment of adulterers also. Catherine ("Taming of the Shrew," act iii,), speaking of Bianca, says to her father:

"She is your treasure, she must have a husband;  
I must dance barefoot on the wedding-day,  
And for your love to her, lead apes in hell."

The fact that the old maid and the adulterer had the same punishment shows that the family property right underlay this prejudice against old maids. In Russia single life is a disgrace. If the parents cannot arrange marriage a journey by the daughter loses her to the community. The report of marriage to a foreigner is then spread, and later report of her husband's death. She then returns home, and etiquette forbids doubt of her widowhood. The Mormon marriage ceremony, evolved from folklore guards against dangers of dying unmarried, is more charitable than the Roman Catholic. Both sacraments originate in Jewish fetichism. "Increase and multiply," a divine command to the Shemites, impelled Lot's daughters to what they regarded as family duty. The Mormon carried Catholic doctrine, that prayer of the righteous helps the dead, to its ultimate consequences. As the Mormon can redeem unbaptized friends by proxy baptism, so he may redeem dead virgins by proxy marriage. Mormon polygamy results from the belief that marriage is a sacrament absolutely necessary for salvation. Here survives the fetichic prejudice against old maids.

Phases of evolution from this prejudice to the modern, occur link by link, in different races, sometimes intermingled with emancipations given by marriage. To enter upon a public career, East India girls must be married, symbolically at least. In some instances the husband is a

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\* Primitive Folk.

† Dyer: Folklore of Shakespeare.

tree. The marriage is consummated by a priest or hired proxy.\* The hired proxy sometimes acts until the wife secures marital status. Transitions occur from this to permanent adoption into the family, which establishes the husband for life.† Among the Creeks,‡ for example, the husband lives in his wife's house but must never speak to her parents until his first child is born. He then enters the family through the child. Among the Nairs,§ when a woman dies a virgin, folklore exacts violation, lest the virgin spirit return to plague the young Nairs, dead virgins' spirits constituting "vampires" with the Nairs. Proxy marriage even among races of comparatively high culture took the form of what has been termed "religious prostitution," which, as Letourneau|| shows, had different significance from that usually assigned it. It was a survival of the *jus primae noctis*; a survival of family property in women which made the husband a stranger until adopted through his child. In Cambodia,¶ religious exercise of the *jus primae noctis*, obligatory on young girls, was performed with great ceremony annually. Parents with girls to marry announced this to public functionaries, who set a date for the religious defloration. A priest (whose services were so costly that the poor long retained virginity) was begged to perform this. Pious persons sometimes raised funds for poor girls who had waited too long. The officiating priest entered and left the girl's house with great pomp. In Assyria,\*\* Armenia†† and Cyprus the ceremony was less individual and more publicly religious. Every Assyrian girl must once visit the temple of Mylitta, there to remain until a stranger had thrown silver into her lap, remarking: "I beseech Mylitta to favor thee;" when his embraces must be accepted. After thus absolving herself from religious obligation she returned home. Thereafter, no matter what

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\* Reclus: Primitive Folk.

† Letourneau: Evolution of Marriage

‡ E. B. Tylor: Jour. Anthropol. Soc., 1 92

§ Dubois: Mœurs de l'Inde.

|| Evolution of Marriage.

¶ Remusat: Nouv. mel. Asiatiques

\*\* Herodotus.

†† Strabo.



the inducement, possession must be allowed through marriage alone. The custom was similar in Armenia and Cyprus.

In these ceremonies and in husband adoption through the child, appear family property rights by maternal filiation. Late in human culture only did rape and adultery become crimes against the person and not against the property. In dealing with mixoscopia these old views must be taken severely into account. Chastity violations are still abhorrent as violation of property rights. Chastity *per se* has still the abhorrent aspect evident in the prejudice against old maids.

Proxy marriage still survives in pseudo-marital customs like "bundling" (New Englanders, Pennsylvania Dutch, Welsh and Scandinavians), "queesting" (Hollanders and North Germans), "hand-fasting" (Scotch and North English), "testing" (Isle of Wight, Purbeck peninsula and South English).

These conceptions, through ordinary folklore evolution, become speech symbolisms, to remain in sexual argot as mixoscopias.

The psychologic status of a people must be judged, not by its ideals, but by the influence of its folklore. The ideal commonsense of the English-speaking race is crystallized into a legal dictum: Everyone must be presumed to be innocent until proven guilty beyond a reasonable doubt. Every circumstance which can reasonably be so construed must be construed in favor of innocence. Despite this, the vast majority of judges, lawyers, police and citizens take the suspicious view of primitive savagery, which requires every accused person to prove his innocence. Mixoscopia, for this reason, survives very frequently from primitive folklore, to judge entirely by its antique standards. While mixoscopia among the cultured is an expression either of nerve-strain from sexual stress, or from unsatisfied and often unrecognized sexual excitation, or from hysteria and allied states which, by removing inhibitions, leave the primary "ego" dominant; still, in plutocratic, shop-keeping and rural middle-class people it often expresses coarseness only, as C. H. Hughes\* shows.

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\* *Alienist and Neurologist*, February, 1903.



Hysteria intensifies mixoscopic expression. As Gueneau de Mussy\* pointed out over three decades ago, the hysteric manifests decided erotic tendencies, the coarseness of which contrast very often with previous seeming purity of life and chastity of heart. Very frequently under these conditions an advocate of "social purity" writes to herself anonymous or pseudonymous letters, accusing herself in coarse terms of having been guilty of unnatural practices, and often this mystifies an entire community. All of a sudden, remarks Legrand du Saulle,† there occur great divisions between families, who cease to visit each other, because they have received anonymous letters. In such community a hysteric exists well acquainted with family histories who, once entered on the way of the anonymous letters, experiences active alphophily in sowing discord everywhere.

Clevenger‡ reports the case of a Peoria woman who was in receipt of abusive, indecent letters from various parts of the country. Her relatives and friends were wrought up to dangerous wrath against her unknown persecutors. Several suspected persons were arrested, among them a cousin of the persecuted female, and there was talk of lynching him. After a batch of communications, more repulsive than ever, came to hand, accusing her of foul and impossible crimes, she took a horse and buggy, drove to one of the principal hotels, and standing up in the vehicle, dramatically shot and killed herself. Government postoffice officials succeeded in proving beyond a doubt that the girl had written all the letters herself.

Though conduct and language may give evidence of existence of libidinous ideas there is rarely, W. A. Hammond§ believes, deep-seated eroticism. The acts and words in question appear rather to be the expression of a spirit of contrariety—a disposition to do something that will astonish or shock the friends—than simple sexual desire. Women affected with hysteria, often with great glee, while, in a state of apparent libidinous excitement, inform the

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\* *Gaz. de Hop.*, 1871.

† *Les Hysteriques*.

‡ *Medical Jurisprudence of Insanity*, Vol. II, page 1030.

§ *Treatise on Insanity*.

physician that they wanted to annoy a particular member of the family. "You think that is bad?" said a girl suffering from hysteria major to her mother, who was shocked at some obscene words she had spoken: "well, what do you think of this?" And then she gave utterance to a series of ideas so obscene and in such vile language that her poor mother rushed in despair and horror from the room. "I thought that would astonish the old lady," said the patient with great satisfaction, "but that is nothing to what I could do if I really tried. Now bring me my Bible, for I want to read a chapter and say my prayers."

Hammond does not take into consideration sexual vicaration in algophily. Sexual frigidity as to physical expression results in intense sexual preoccupation, which finds algophilic satisfaction in pain caused others by mixoscopic language. The primary "ego" is peculiarly dominant here in an auto-erotism where the sexual emotion and desire are not only nearly absorbed and lost in self-admiration, but this self-admiration finds intensification by the agony of others. Auto-erotism of "Narcissus type" appears in women in excessive use of the mirror. It exists in greater degree in primitive man, where male ornamentation is most marked. Civilization tends to increase this "Narcissus" factor in women, but has given it a more altruistic tinge through intensifying desire to be attractive to the male. In defectives lacking potentialities of the secondary "ego" this tinge intensifies and intermingles with the primary "ego," whence the coquette, the harlot type and the auto-erotic pervert, destitute of homosexual or heterosexual tendencies. This last type occurs with peculiar frequency among the social "purists" who take such mixoscopic views of love. Zola\* has depicted this type in Hyacinthe. It is lower than the invert, since it has no altruistic element whatever; the universe being concentrated in the individual himself. Many cases of the chastity of impotence are instances of this extreme auto-erotism. Lombroso's sexual pervert "who created worlds surrounded by symbolic derogations of women" was of this type. Mixoscopia, peculiarly apt to occur in it,

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\* Paris,

is manifested toward both sexes. Invert mixoscopia is displayed toward the opposite sex. Mixoscopia of the psychic hermaphrodite might be displayed toward both sexes, but not as in the auto-erotic type. Hysterics, as Morel\* remarks, develop themselves in the most whimsical, false and unjust ideas. The knowledge of truth being no longer a dominant note of their character, they never relate events as they occur, and they deceive with equal pleasure husbands, parents, clergymen and physicians.

Behind the various witchcraft epidemics were the hysterics. Their sensual anesthesia is in marked contrast with their erotic confessions as to the "Witches Sabbath." A phase of this satanistic revolt against conventions is rather mildly expressed by Mary McLane in her imaginary love proposal to the Devil.

These auto-erotic states readily form algophiliac accusations, involving the individual herself in imaginary sexual relations.

In 1891, an Islip, L. I., milliner complained that her store had been fired several times, and that obscene letters had been sent to her. She confessed later that she set fire to the store and wrote the letters. She implicated a young man, and stated she had been his mistress. He was arrested, but as she failed to prove her charges he was released. She was then indicted for perjury. In her confession, read at the trial, she said that she fired her store in order to get money to go to New York and find the young man with whom she was infatuated. William A. Hulse and Furman Nicholl testified that the defendant had suffered from hysteria and temporary insanity, resulting from dysmenorrhea. L. C. Gray testified that under the right and wrong knowledge test of the New York code she was not insane. The jury acquitted her in clear defiance of the code, on the ground of insanity.†

Hysterics, as has been shown by Des Champs,‡ are neurotic women, in whom an aggravated sensibility exists.

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\* *Etudes Cliniques.*

† *Alienist and Neurologist*, 1895.

‡ *Review of Ins. and Nerv. Dis.*, 1891.

Neurotic women are divisible into three categories, according to the predominance of one of three centers—cerebral, genital and neuropathic. These types may be intermixed. There is an absolute want of equilibrium in sensibility and will power. There exists mobility of humor in direct relation with facile impressionability to external influences or to internal states. The nerves vibrate to all sentiments coming from within or without, and all are registered without proper relation. One fact chased by another is forgotten. Another produces a momentary hyperexcitation, which takes place of the truth, whence it is that falsehood is instinctive, but the patient protests her good faith if accused of the same. This lack of equilibrium leads to a decided modification of the mental faculties. Intellectual activity is over-excited, but in diverse degrees and variable ways, according to the particular tendencies adopted. Absorbed by a pre-occupation or controlled by an idea, they become indifferent to all else. Their ideas are abundant, and they rapidly pass from the idea to the act. Their vivid imagination, coupled with a bright intelligence, gives them a seducing aspect, but their judgment is singularly limited, attenuated or false. They judge from a non-personal standpoint excellently. They are quick at discovering the faults of others, even relatives, but faults rightly attributed to themselves are repudiated. Their memory is capricious. They forget their faults and their acts under impulse, albeit these may be consciously done. The cerebral type is led by the intelligence. She has little or no coquetry; what coquetry there may be is the result of intention, and temporary. There is an ethical sense, frankness and nobility in her ideas, disinterestedness and tact in her acts, and she is capable of friendship. Her tastes carry her to male pursuits, in which she succeeds. She becomes often what is called a "superior woman," but too often what is called a "misunderstood woman." She has but little guile. To the sensual type voluptuousness is the aim of life and the center of her acts and thoughts. She is well endowed with guile and extremely diplomatic. She is full of finesse, but not very delicate. Her lack of scruple often spoils her tact.



She is ruseful, dissimulating, and unconsciously mendacious. She despises friendship and needs watching. If circumstances permit, she loses all delicacy, reserve and modesty. She is destitute of scruples. Her crimes are coolly remorseless. The neuropathic type is one to which the grasshopper is a burden. Her nerves are always on edge. She is a heroic invalid who displays the air of a martyr about trivialities.

These states express psychic scars resultant on the struggle for existence between the organs during puberty and adolescence.

One phase of the day-dream type of confession takes the form of the diary. While this in the case of adolescents very often purports to be a registration of facts, the facts are generally impressionist views of the environment of the diarist. The day-dream, moreover, occurs therein as a species of offset to the trials sustained. As C. H. Hughes has pointed out,\* hysteric confessions find expression in a species of romance in the diary. More than one physician has had occasion to regret the diary. Some thirty years ago the English courts† were called upon to decide as to the validity of diary testimony. For several days Westminster was occupied in investigations of a charge brought against a physician by the husband of a patient. The lady kept a diary in which she noted down with the utmost minuteness the rise, progress and entire history of an overwhelming passionate attachment between herself and the doctor. The diary came into the husband's hands, whereupon he instituted proceedings for divorce. When the trial came on the diary, consisting of three bulky volumes and extending over a period of five years, was produced. Nothing could be clearer, more explicit, or more astonishing than the disclosures therein contained. It was established, however, beyond a doubt that the lady, although apparently conducting herself like other people and giving no external sign of disordered intellect, was the victim of an hysteric delusional state, the offspring of a day-dream

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\* *Alienist and Neurologist.*, Nov., 1902.

† John Paget: Judicial Puzzles.



registered in the diary. The doctor, shown to be innocent beyond a doubt, was wholly unconscious that he had been for years made the hero of a romance rivaling the adventures of Faublas. In the case of *Stewart vs. Stewart*, recently tried in Chicago, a diary was produced in which the wife avowed her attachment for an eidolon named Jack, with which eidolon peculiarly passionate incidents occurred whenever the husband had been naggy. On the witness stand the woman declared (and was believed by a judge and jury) that Jack was a pure creation of the fancy. While the diary habit has not the dominance it enjoyed in the last half of the eighteenth and the first half of the nineteenth centuries, still it is sufficiently in evidence to crop up in literature as an expression of adolescent mixoscopia. As might be expected, the day-dream diary is peculiarly frequent in the literature of hysterics, invertes or psychic hermaphrodites.

*(To be continued.)*

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# OUTLINES OF PSYCHIATRY IN CLINICAL LECTURES.\*

BY DR. C. WERNICKE,

Professor in Breslau.†

## LECTURE TWENTY-FOUR.

Intestinal, Ascending and Diffuse Somatopsychoses—Hypochondriacal Reflex  
Psychoses—Severe Hypochondriacal Psychosis in an Inebriate—Ex-  
ample of a Paretic Somatopsychosis—Form of Disease  
and Actions of Somatopsychical Perplexity—  
Terminations—Review of the Hypo-  
chondriacal Symptoms.

**I**N the patient recently presented you have an example of those cases occurring frequently, which deserve the name of *psychosis with hypochondriacal apprehension*. As is seen it is a matter of circumscribed intestinal somatopsychosis, depending on abnormal physical sensations in the digestive tract, which quickly lead to disorientation in a circumscribed and intestinal domain of the consciousness of the body. The attending feeling of severe illness is readily comprehensible as a sequence of the disorder of somatopsychical identification. Our patient called her mental state anxiety, but more often, in accordance with the paramount change in content, the patient says the affect is not real anxiety, but something different, especially those patients who are in possession of better expressions owing to their education. It is evidently a matter of that affect we have become acquainted with as physical or somatopsychical

\* Continued from *Alienist and Neurologist*, Vol. xxxiv. No. 1.

† English by W. Alfred McCorn.

perplexity. Then further, an anxiety occurring in paroxysms, differentiated as something special, new.

*Circumscribed intestinal hypochondria* is preferably located in the vicinity of the two terminals of the digestive tract, accordingly as the difficulty in swallowing exists at one time, regarded in its broadest sense, so that the whole act of conveying food to the stomach is meant; again difficulty in defecation is the most prominent of the symptoms. In a case of the latter sort a rectal catarrh, which was maintained by hemorrhoids, could be ascertained to be the basis of the hypochondriacal ideas, and likewise a globus, which had existed previously, might in female patients often be the starting point of the other form, traceable to the subjective difficulty in swallowing.

As is perceived from such examples, the interpretation is unquestionable that it is a matter of a disorder of psychosensorial identification in the domain of organic feeling, but hard and often not to be established whether hyperæsthesia, paræsthesia or anæsthesia exists.

The two different initial localizations lead to the same result at a certain stage of development, to the feeling of being stuffed, in one mode of origin that the food, either swallowed with difficulty or artificially introduced, accumulates in the stomach, in the other, that masses of feces dam up from below, even to the throat eventually. The most common and important consequence of these pathological sensations is refusal of food, which in cases of the kind almost always renders forced feeding by the stomach tube necessary. A feeling of intense misery is always present, wholly comprehensible from the prevailing feeling of severe physical illness. Thus the judgment of the future is influenced: the patients always believe they are absolutely hopeless and lost. The real ideas of anxiety in the pure cases of the kind are confined to the autopsychical domain and within it are limited to the patients blaming themselves for having produced or aggravated their disease by neglect of medical advice or orders. In the case of an unmarried woman of 60, who became acutely ill with this form of intestinal somatopsychosis with persistent re-

fusal of food, after a prolonged period of nursing, combined with depressive affects. The abnormal sensation in the throat ceased after the disease existed about six months, but the feeling of misery and the ideas of autopsychical anxiety of having no bowel movement, and the disease finally terminated fatally.

With regard to the motor condition in this disease, it is wholly of psychological origin in the pure cases. Perhaps it is due to individual variation, that in one patient more of an agitated character, outbreaks of crying and despair, lamentations, wringing the hands is more observed, in another a loss in motility to a moderate degree, as we find it explainable by the feeling of severe illness. This condition can either exist in like manner during the whole course of the disease, one condition replace the other, or the agitation corresponds to one or more of the highest points of the disease curve. Inversely an extreme loss in motility, in other words an intrapsychical (psychosensory) akinesis may correspond to an increase in the extent of the symptoms, and I have observed this, *e. g.*, in a case of *ascending intestinal somatopsychosis*. Here then the akinesis was the severer symptom, as it was then to be derived accordingly from an increase in the feeling of illness, for the patient was untidy and claimed to be unable to stand, walk or talk. These functions were actually retained, as might be established by incidental reactions.

It was a matter of a woman of 57, who for years had a hard struggle for existence and then became ill with the sensation of closure of the rectum. Six months later, at the time of the crisis of her disease, she was filled with masses of feces, could no longer breath, could not move. While at the onset of her illness she again manifested in despairing restlessness her fear of having to starve, after an intercurrent influenza she passed into the state of profound exhaustion described, in which she complained of the slowness and difficulty in thinking. An infiltration of both upper lobes seemed to make the prognosis absolutely hopeless, nevertheless, after remaining several weeks in the condition described, the patient convalesced and in about a

year could be discharged improved to family care. The disease curve in this case may be considered as purely extensive and the akinesis corresponded to the highest point of the curve. The case was interesting in that the cardiac oppression was always stated to be a separate symptom, and that ideas of autopsychical anxiety in form of self-accusations occurred only temporarily and by intimation.

More plainly than in the preceding case is the ascending tendency of a circumscribed hypochondria confined to the genital organs, shown in the following, which I have presented a few semesters ago. It is a Jewish girl of 23, who previously had several attacks of a psychosis, first of a melancholic nature, then more of a maniacal, and whose sister had twice been insane. She had lived in her brothers family and most devotedly cared for his seriously ill child. At the onset of her illness she complained of the feeling of a hard body in the genitals and was therefore treated by a gynecologist. It was accompanied with burning, tenesmus of the bladder and desire to urinate while menstruation was suppressed. An objective condition could not be constated. When the child died about two months later the patient began to take the hardest work on herself, nevertheless, she soon claimed she was worthless, could not work, was in the way and a burden on her brother. About two months later she attempted suicide by chloroform and was unconscious for several hours. A thwarted attempt to jump into the water about three months later was the cause for sending her to the Clinic, the patient having worked hard until the last day from micromania. In the last two weeks outside and the first month of her stay at the Clinic, her physical troubles increased to a very desperate condition. Patient stated that in consequence of insufficient defecation food collected in her and had been changed into a solid mass—not feces, as she expressly stated. This hard mass is forced into all parts of the body, the whole body is deformed by it, has become firm and hard, only the skin is still natural. Patient is convinced of this by the internal feeling of weight and she feels herself with her hands. The body seems to her dead and insensible, and as if no



blood flowed in it, although the patient feels her pulse and hears her heart beat. This numbness affects the sense organs also: she can hear with her ears, but her eyes are fixed in her head, she cannot move them or open the lids. When eye movements were executed at the examination, she maintained this is not true and she must turn her head instead. She is in doubt whether she can smell, feel, taste; she tries it with milk and then answers affirmatively. She can swallow and move the tongue. Patient persistently refused food at this time and had to be fed with a tube. She claimed that defecation was insufficient, even when injections or cathartics, which she takes willingly, have acted and she has felt relieved for the time. The feeling of the severest illness, absolute hopelessness in regard to her physical condition and a corresponding depression constantly exist. Still anxiety was complained of only temporarily at times of extreme excitement and despair, the feeling of anxiety being located in the breast.

With respect to the patient's motor condition, outbursts of despair ceased owing to progressive loss of strength. The delusion existed she had sinned by eating too much, she is eternally lost, deserves the severest punishment, which she longs for, *e. g.*, like being burned. Her detention at the Clinic—where she must of necessity be kept under observation—she considers deserved, if too mild punishment. Further her intellect was intact, orientation completely retained in spite of physical weakness, no retardation, hallucinations or delusion of relativity. With constant loss in weight, death occurred after nine month's stay at the Clinic.

Cases in which the pathological sensation is localized more in the air passages represent a not rare modification of the intestinal somatopsychoses. In a case of the kind the nostrils were the site of this pathological feeling, combined with the fear of suffocation; in another the feeling existed that the throat is dried up and the trachea closed, while swallowing and eating are unaffected and no dyspnoea exists. Nevertheless, a feeling of a heavy load, like a stone localized in the epigastrium, was felt so keenly that

the patient, a peasant woman of 42, called it a deathly feeling. It is said this feeling had gradually risen to the throat. The patient was troubled with an internal restlessness, moaned constantly and had the most intense suicidal tendency. Many of these attempts had been thwarted. At the time of observation she had been sick a year, and it was learned that in the first six months self-accusations and fears for her family existed in still more marked anxiety. Her hoarseness and occasional spells of coughing were the reason for examining the larynx; it was found that besides the catarrh, which caused the vocal cords to swell, one was completely paralyzed. Although the suspicion of a tubercular affection of the larynx must arise in the case, the paralysis of the vocal cord was evidently still unexplained, hence the question could be raised whether it must not rather be regarded as a direct sequence of the hypochondriacal sensation in the innervation of the larynx, in other words, an effect of the pathologically changed organic feeling in the organ serving motility, in the sense of my previous remark.\* The possibility that the catarrh is merely a sequence of the defective innervation, then finally of the pathological sensation, was thus afforded. However, I admit that the one-sidedness of the vocal cord paralysis, contraindicated this explanation and another conception of this rare form of disease is more appropriate. Vocal cord paralysis and catarrh were perhaps the common consequence of a latent cause not demonstrable by examination, and the parasthesia of the organic sensation in itself pathological the starting point of the circumscribed intestinal somatopsychosis—then to be regarded symptomatic.

Much more probable than psychosensory akinesis in the sense of my prior developments is to be understood the occurrence of symptoms of paralysis in cases of circumscribed vesical hypochondria. These cases constitute the transition between hypochondriacal psychoses and neuroses, in that they encroach still less on the other mental functions than those previously described and may often dispense with institutional treatment, the more so because the nu-

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\*See *Alienist and Neurologist*. Vol. XXIII, No. 4, page 413.

merous subjective disturbances grouped with the paralysis of the sphincter, usually occur at certain hours of the day, but may be wanting at other times. Especially annoying is the feeling of the desire to urinate, combined in part with a tendency to pollutions, which may occur without erections. The patients are therefore in constant anxiety of being in distress, besides a feeling of anxiety localized in the epigastrium may exist. At other times than during the attacks the patients appear psychically normal, but in them they suffer from more or less pronounced ideas of autopsychical anxiety and a despondency which may cause weariness of life and the suicidal tendency. The whole mode of life is usually so regulated by these patients, that troubles of the sort cannot occur, hence business association with other persons suffer. In a case of the kind treatment by warm baths for many hours, in which the patient felt relieved of all solicitude of sudden distress, was successful for a long time. I need not state that these cases are characterized by the absence of any local change and all symptoms in the sensory nerves and spinal cord, while in the preceding a previous vesical catarrh or a gonorrhœa seem not to have been unimportant.

Approximately similar to the hypochondriacal neuroses are certain cases of defecation hypochondria, in which by regulation of the bowels, the chief annoying desire, like the anxiety with the sequela, is relieved.

The circumscribed intestinal hypochondria is occasionally found localized, as is not otherwise to be expected, in the female genitals. A typical case of the sort, which I have presented at the Clinic, is a servant girl of 22, who, until her illness, had been of normal intelligence, but always easily excitable and inclined to outbursts of anger, whose brother died insane. After anger she has repeatedly had attacks, whose form cannot be more definitely ascertained. At the time of her presentation she has had for nearly two years, if also with a few long intervals, a burning, not directly painful feeling, but described as wholly unbearable, in her genitlas and in the lower abdominal region. This burning was not continuous, but always soon returned. It

was worse toward evening and at times combined with pains in the sacral region, headache, vertigo and nausea. At the same time the patient complained of anxiety in the epigastrium. The disease was attended with a feeling of misery, profound depression, hopelessness and facial expression, as well as the whole apathetic conduct, corresponded to this mental state. At the time of the menses the troubles were less, sacral pains and some discharge occurred before and after them. The patient's motor condition deserves special mention. While she usually remained dejected and apathetic in bed, occasionally outbursts of wholly unreasonable and most absurd violence occurred, when the patient cries, strikes, bites and scratches, as well as totally mistakes her surroundings. The patient subsequently has no memory of these fits not lasting over an hour, they are always attended by an exaggeration of the abnormal sensations in the genitals, then the feeling occurred, like an aura, as if the body became numb and consciousness disappeared. We will not err if we regard these motor manifestations, which are of the stamp of senseless violence, as a sort of reflex from the intensely exaggerated organic feeling and hence as psychosensory hyperkinesis. At the time of observation had ulcers of the cervix and vagina. Her illness had obviously followed a confinement and subsequent metritis. Owing to these attacks of violence, the patient must be sent to a custodial institution. Although her symptoms reported so approximate the type of epilepsy, yet typical epileptic seizures have never been observed.

Except the cases of motor discharge just considered, which are to be included among the dazed condition of the transitory psychosis so-called, to be described later, a circumscribed intestinal somatopsychosis, and also emanating from the genital organ, is expressed in the case described. The close relationship of attacks of violence with those of epileptic and hysterical dazed conditions is admitted, but it does not prevent so regarding them that the constant abnormal intestinal sensation forms the starting point of acute transitory attacks, so that the latter appear in the light of



a reflex psychosis incited from the genital organs. In this transitory disturbance the identification disorder is then extended to all three parts of consciousness, but the motor discharge retains the character of the psychosensory condition and thoroughly bears the stamp of somatopsychical perplexity. This method of consideration has the advantage of a uniform conception of the disease type. It is supported first of all by the fact that an exaggeration of the local disturbances always precedes the attacks of violence, but further by experiences in analogous cases. I have observed, wholly isolated, an entirely similar attack of violence in a girl of 20, who constantly had an intense feeling of misery with suicidal tendency and, once when she gave up her reserve and expressed herself, gave with all definiteness as cause of her condition, pains in the lower abdomen. These pains were in general of a fluctuating character. In the frequently recurring exacerbations of several days, they were described as convulsive, located in the region of the uterus and parametrium, combined with a terrifying feeling of anxiety ascending to the heart and appearing with ideas of incurability and suicidal impulse. Patient cried and moaned loudly and supervision necessary from her outbursts of dejection. Verbal suggestion once had a calming effect, more often chloroform must be resorted to. Fanciful names for the disease were wholly wanting. The objective condition of the genital organs led to the conclusion of prior masturbation (erosions of the vulva and vagina, with slight catarrh and bladder trouble). Further there was slight retroversion of the uterus and obstinate constipation. Sleep and nutrition were greatly impaired constantly. The patient, saleslady in a confectionery store, was the daughter of a father of unknown parentage, and was admitted to the Clinic after a severe hysterical excitement caused by a quarrel with her chief, in which she struck out blindly and cried fearfully. After six months she was transferred to a custodial institution, as a permanent improvement was not to be attained. The attack of violence observed by us occurred about the middle of her stay and was said to be caused by anger. Here, accord-



ing to my opinion, it would have been necessary to interpret differently the brief transitory psychosis, rendering prominent the rest of the picture than in the preceding case, moreover, the motor discharge corresponded to a diffuse somatopsychical perplexity. Furthermore, the patient was discharged from there recovered after six weeks, in consequence of the powerful impression which the transfer to a custodial institution must make on her.

That the sense organs may be the cause of pathological organic sensations and thus circumscribed hypochondriacal or somatopsychosis, is shown by the following instructive case: A woman of 71, physically vigorous, who until nine months ago had taken care of children and, on careful examination presented no signs of weakened intellect or senile mental disorder, voluntarily sought admission to our Clinic, because she feared she might commit suicide. During her stay at the Clinic of over four months she always presented the same symptoms, until the period of improvement preceding her discharge. On admission, moaning to herself, owing to anxiety in the heart. Chief complaint, a roaring in the head. The roaring is constant, increases in perfect stillness, so that the patient preferred remaining on the somewhat noisy admission ward. Subjectively this roaring is extremely unpleasant, gives her no rest, disturbs her thoughts, engages her attention. When the roaring is bad, uneasiness in the heart and anxiety occur at the same time. Feeling of intense misery, hopelessness, ideas of autopsychical anxiety, with the content of self-accusations, which she at the same time repudiates, insomnia, anxiety about the stillness of night, when the roaring increases, thoughts of suicide. Intelligent face, no defects, ability to attend good. Patient takes care of herself, sleeps on hypnotics. According to the patient's statements, this condition has slowly developed for four months. At first only roaring in the ears, for which she consulted different aurists. Then uneasiness and anxiety in the heart. Patient ran about here and there and could no longer occupy herself. Finally took too little food intentionally and suicidal ideas. The condition was always

worse in the evening, which was confirmed at the Clinic. She eat well at the Clinic and during the last two months increased in weight from 52 to 55 kg. The results of testing the hearing and examination of the ears were interesting. Old changes in both ears, retraction of the tympanum, left more than right (old otitis media). On admission whispers understood at 3-3½ m., stated further that the hearing was better or worse according to the intensity of the roaring. The first two months perceptible decrease in in the acuteness of hearing. This is manifested in ordinary conversation, in whispering the acuteness of hearing falls to 30 cm. on the left, 20 cm. on the right. Very poor bone conduction is also found, the watch is not heard on the head or mastoid process. An improvement in the psychical condition in the last two months was coincident with the favorable effect of treatment of the ears by Politzer's method. On discharge the roaring was still present, a moderate feeling of illness and worry about the return of the old condition existed, but the anxiety, the feeling of misery, the self-accusations and suicidal ideas had disappeared. Patient heard whispers with both ears at 5 m., also the bone conduction seemed improved, if worse on the right side than on the left.

One of the most remarkable cases of diffuse acute somatopsychosis, affecting the external configuration, I will try to describe from notes at the time of my connection with the insane department at Charité. The laborer, N. 46, was admitted December 6th, 1876, to the insane department as delirious. He had been admitted to one of the other wards on March 8th, of the same year, and after three days transferred to the delirious ward, but was discharged recovered on March 31st. The little data of this time seemed to render the diagnosis of delirium tremens doubtful, while there is much that indicates he had severe hypochondriacal disturbances (semen flowed from him constantly, burning in the mouth, the larynx is removed), and besides marked tremor and other objective signs of continued alcoholic excess, among others the well known hallucinations of sight. His restless conduct, again called delir-

ious, was the cause of his re-admission. Perfect allopsychical orientation and memory of the previous sojourn, only moderate use of alcohol said to have preceded. Deeply wrinkled, sorrowful face, with anxious, nevertheless occasionally smiling expression, anxiously accelerated respiration, no tremor of the hands, only slight tremor of the tongue, constant moaning and muttering. Hypochondriacal ideas: His brain is congealed, he cannot speak, the jaws were so loose, the throat is torn, the tongue has grown fast and it seems to him he cannot hear. These assertions often, without apparent affect, in a quiet, conversational tone. Sometimes does not respond, although spoken to loudly, again to whispers, then says: "He can hear, but there seems to be no tension in the ears," and then puts his fingers in the external meati. Says his head aches. Protrudes the tongue after he has claimed he cannot. He now states anamnistically that it had seemed so strange to him for some time, but he had officiated as house servant to the last. Pupils quite small, equal, dilate only a little when shaded. Claims to have no face, the head is almost like a stone. Other complaints: the rectum has been torn out, the head is on wrong with the face backward. Similar complaints changing in their content, which were temporarily corrected during the whole duration of the disease, while the delusion of the perverse position of his head is conspicuously fixed. Apparently no hallucinations, only at first accessible to consolation. Gradual refusal of food, because patient had no stomach, could get no air. Forced feeding necessary. Sleep to be obtained only by hypnotics. Extremely peculiar motor conduct during the whole duration of the disease. At one time the patient used the side rails of neighboring beds, separated by aisles, to walk on like the rounds of a ladder, then standing up in bed he let himself fall out backward, again threw himself out forcibly while turning his body, usually for the reason his head is on wrong. His moaning is often so annoying that he must be secluded, at other times strikingly calm, even peculiar smiling manner in narrating his troubles, often monotonous reproduction of former experiences resembling verbigeration:

"N., will you stay here?" "No, Sergeant Major," what the patient explains, that he had been a non-commissioned officer and now greatly regrets having refused the demand to surrender. Often insists in hiding himself in a corner, singing to himself similar experiences, as that above cited, never real motor symptoms. Gradual resistance and blind opposition to everything, strong clothing necessary, filthy, loss of strength. Many injuries from the movements above described, violently pounds himself in the face with his fist, etc. Finally alternating with refusal of food or simultaneously with the assertion of not being able to swallow, animal-like ferocity toward the food offered, so that there was danger of being bitten, and swallowing the food unmas-ticated. After a restless night, sudden calmness and death from exhaustion on May 4th, 1877. The autopsy showed besides a very marked, almost untearable thickening and clouding of the pia of the convexity, internal and external hydrocephalus, as cardinal lesion numerous encysted trich-inia in all the muscles, but particularly in those of the neck. In the supraclavicular region beneath the deep fascia, an area infiltrated with pus, not sharply defined and about the size of a pigeon's egg, which apparently corresponds to a suppurated gland, and continued upward in the deep muscles of the neck to gradually disappear. Viscera unchanged other than signs of general marasmus.

The manifestations of somatopsychical perplexity displayed in this patient's conduct were so peculiar that they are indelibly stamped on my memory. They are evidently rendered in part comprehensible by the autopsy, and we may especially assume an inner connection of the suppurating focus in the deep muscles of the neck, with the peculiar leaps often endangering life, by which the patient tried to correct his fancied malposition of the head. We shall be justified in regarding the fundamental psychosensory identification disorder as a pathological (psychotically induced) paræsthesia of the sense of position of the head.

The change in the external configuration of the body is met with a no less instructive case I will now briefly outline. It is of a former officer of 35, of noble birth and



strong organic taint. Depressed at times for three years past, for six months he had been in the sad condition in which I became acquainted with him. During this time has slept poorly, occasionally wet the bed, impotentia cœundi. Except an intimated ataxia while in bed, a questionable speech disorder and traces of a right facial paresis, no demonstrable symptoms of paresis, still an old infection admitted. Attention, memory, judgment particularly good, no fainting spells. Frequent deep inspirations. Feeling of misery, subjective incapacity for work, etc., according to his complaints. These refer exclusively to his body, which the patient says no longer feels right. It is changed, bulky, unwieldy, like a lump of dough, the nose has become a bottle nose, tongue and mouth swollen, patient cannot open the mouth wide enough, defecation entirely insufficient, patient is full to the middle of his esophagus, food and drink have no taste, taken only from a sense of duty, a pasty, slimy taste in the mouth constantly, neck and throat hot and dry, as if burned. A peculiar feeling of anxiety is spoken of. On continuation of these troubles the patient had to be sent to the insane hospital, owing to brutal assaults on his extremely sacrificing wife, and there died in a few months from rapidly progressive paresis.

The example cited of hypochondriacal psychoses or somatopsychoses may suffice to show that the individual cases are of a very different stamp. We will try to embrace the signs common to them all, to obtain in this way a differentiation from other psychoses. With respect to *etiology* we see that a demonstrable somatic affection quite often determines the content of the pathological identification disorder. Nevertheless, it may not here be a matter of the simple relation of cause and effect, for the same organic affections are observed numberless times without any form of psychosis resulting. Whereas, it may be permissible to regard these cases as certain examples of psychosensory paræsthesia of the organic sensations concerned. The old theory of changes in position of the colon as cause of mental diseases now seem comprehensible in a certain measure and even with the restriction just given, ap-



proaches the possibility of realization in the special case. The form of disease is always essentially determined by the psychosensory identification disorder of organic feeling, if it is often not to be more closely ascertained whether paræsthesia, anæsthesia or hyperæsthesia exists.

The *localization of the pathological sensations* is often wholly indefinite and diffuse, as *e. g.*, is especially frequent in the initial stage of parietic dementia, when a feeling of severe illness is ascribed to portentous, indescribable sensations in the whole body. Besides it may be very heterogeneous and affect almost all parts of the body, including the sense organs, but a pure somatopsychosis can then only be assumed, when the conformable change in content leaves the allopsychical domain intact or, in other words, the cause of these changes in content is not sought in the world. Those organic sensations then, which are more conformably combined, according to their content with events in the world as, *e. g.*, the sensation of piercing instruments, electrical shocks, contacts, etc.; always exceed the bounds of a pure somatopsychosis, and no less the symptom of the delusion of somatopsychical relativity.

Whereas, the autopsychical domain is always more or less involved, corresponding to the affect state induced by anxiety or somatopsychical perplexity. The dejected, depressed state of mind, feeling of misery, hopelessness, ideas of autopsychical anxiety of the most diverse content are always to be met with. Phonemes are often conspicuously absent; when they occur they only serve to put the ideas of autopsychical anxiety and the somatic sensations into words. Explanatory delusions are usually, but not always present. From them the sensations obtain their fantastic explanation. Thus the concept of the mental disorder becomes accessible to the laity, as *e. g.*, when worms in the brain, a frog or bird in the body is complained of. Anxiety, with its favorite localization in the breast, head, the whole body is an almost never failing attendant symptom. The more pronounced it is, the more real ideas of anxiety are manifested, and it may so dominate that it is justifiable to set apart certain cases of somatopsychosis, as psy-

choses with hypochondriacal apprehension. Mrs. L.\* recently presented, was an example. But these cases are well characterized by the absence of ideas of allopsychical anxiety and delusions of relativity.

The patient's *motor conduct* is psychologically comprehensible, at one time more agitated according to the sensations and feeling of somatic illness, again reduced to the verge of immobility, the linguistic expressions are analogous. The self-accusations resulting from the sensations claim special importance from refusal of food, suicidal impulse and actions of somatopsychical perplexity. Of such actions a few may be especially spoken of, for they must be of interest from their atrocity. They include pulling out the tongue, tearing off the genitals, tearing the orifices of the body, gouging out the eyes, crawling into the chimney. What abnormal movements may arise from paræsthesia of the sense of position we have seen in the instance of the patient, N.†

It is an erroneous, if also authoritatively disseminated idea, that the boundary line between hypochondriacal mental disease and the hypochondriacal neuroses is thus given, that fantastic or explanatory delusions are wanting in the latter. The differentiating sign is here to be sought rather in the influence the hypochondriacal feelings have on the patient's actions. Patients, who from fear of committing suicide, come to the insane hospitals themselves, like Mrs. B., above described, without any fantastical explanation, will have to be considered insane, and likewise all those refusing food. But the exclusive concentration on the pathological feelings may condition an incapacity of the patient to engage in any occupation and to care for himself. The feeling that the lungs rub against each other in breathing, and acute attendant pains without objective lesion, forms the patient's chief complaint, who combines with it not fantastical explanation, but is wholly occupied by the intense feeling of illness and so rendered incapable of any employment. I am in no

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\*See *Alienist and Neurologist*, Vol. XXIV, p. 68.

†See *Alienist and Neurologist*, Vol. IXIV. Described in prior part of this lecture.

way averse to calling this example a boundary case between hypochondriacal psychoses and neuroses. But I must unquestionably call another case insane, in which a general deterioration in motility bordering on immobility, without any intellectual disorder, was induced by an unbearable itching in the intestines, and this not fantastically explained.

The psychoses with apprehension in pure cases, as well as the hypochondriacal variety and the other somatopsychical psychoses are relatively simple disease types, controlled in their whole course by the same symptom complex. Their disease curve may often be constructed as well from the intensity as extent of the symptoms, in which the affect of anxiety and the motor perplexity will be decisive for the intensive curve. Where the extent of the symptoms remains the same through the whole course of the disease, which is often the case in the circumscribed intestinal somatopsychoses, a purely intensive curve results. The cases in which an extension of the pathological feelings from a circumscribed region of the body to further organs is observed, present an extensive curve, of which the intensive may be independent. The relation of the two curves is perhaps decisive for the *prognosis*, in that an increase in extent without corresponding intensification of affect seems to be of unfavorable import. Besides the prognosis in all cases depends on the state of the nutrition, still only in the sense that the restitution of a certain weight forms the preliminary condition for the possibility of recovery and prevention of the lethal termination; in no way is a favorable course assured by a good state of nutrition at the onset of the disease. Life is always threatened. Termination in dementia is to be anticipated in the paretic and hebephrenic somatopsychoses, severe organic taint is then to be regarded prognostically unfavorable, when the bounds of the hypochondriacal neuroses are overstepped and unquestionable mental disease exists. Nevertheless, the acute somatopsychoses must, on the whole, be included among the curable mental diseases.

Whether a curable paranoiac stage occurs in the soma-

topsychooses, must be ascertained from further clinical observations. Whereas, the termination in chronic mental disorder seems to be quite frequent in cases whose acute character is induced more by the state of affect than by the duration.

I might very briefly mention a frequent combination of circumscribed intestinal hypochondria with the disease type of affective melancholia yet to be described. The hypochondriacal feeling, of which it is a matter, is usually intestinal, in women frequently arising from a feeling of globus in the sexual organs. These cases are entitled to the name of *hypochondriacal melancholia*, which is often improperly used and characterized by an absolutely favorable prognosis when the treatment is early, *i. e.*, within a hospital.

In accordance with our program I now pass to a brief description of the hypochondriacal symptoms, of which I ascertain whether they are isolated or combined with others, and whether explanatory delusions and other sequential symptoms are present or not. When functions of organs, which are normally unconscious, are perceived and accompanied by pathological sensations, we will have to regard them examples of psychosensory hyperæsthesia. Here belongs the digestive process of the stomach or intestines, after partaking food. This symptom increased from a slight feeling of discomfort to wholly fantastic derangements, is very often met with in insane and combined usually with the explanatory delusion, that poison is mixed with the food. An actual gastric catarrh is quite often the starting point of the pathological identification and leads to the complaint of feeling of weight, as though there was a stone at the pit of the stomach. The localized anxiety in affective melancholia may often be of this origin. The sense of burning, boiling, drawing, glowing in the viscera of the thorax and abdomen occurs frequently in insane. The heart is the starting point of numerous disturbances; it either beats too fast or too slow, seems to the patient to stop, the blood to stagnate in the veins. In a patient of Kalbaum's, a painful sensation in the heart was referred to



the sight of the fire on the hearth: the heart was burned out. Muscle pains are often the basis of a very intense feeling of illness, as several examples of rapid restoration by relief of the muscle pains proves. It also depends on hyperæsthesia when moderate muscular exertion, as in standing, walking and sitting, induces a feeling of great fatigue and thus the idea of loss of strength and hence the approach of death. The idea of having consumption and therefore of being about to die, may usually be traced to muscle pains in the thorax. It might be due more to intestinal feelings, when the lungs are said to be suppurating or gangrenous, in part a misconception of the expectorated pharyngeal and nasal mucous exists, often a corresponding hallucination of smell also.

The brain is an especially fertile source of hypochondriacal sensations. The idea is uncommonly prevalent that it moves in the skull, an overflowing or fluid, oozing, trickling feeling is described. Also the sensation that the brain is shriveled up, dried, that it glows, is corroded, is often stated. A crawling, creeping feeling is located on the brain surface and ascribed to little animals. The sensation that the brain substance is effected by external agencies leads to the idea of machines and persecutors. A patient describes different nerves which arise in the brain; he compares them to wax candles of different lengths and exactly designates the places where he feels them. A sighing, roaring, thundering is often expressly located in the brain, not in the ears.

The feeling of being hollow must depend on very curious sensations, in that the patients often expressly state that the food taken falls into a cavity! A patient expressed the idea that the diaphragm is broken through and the air at every respiration enters the abdominal cavity. These serious sensations are especially frequent in paretics.

It is specifically paretic when patients say that there are laborers in their brains, who do a certain work and send out loaded wagons, when patients claim to have a regiment of soldiers, a factory or a church in their body or a number of brandy casks under the skin. Whereas, the



statements of insane women of being pregnant, or of having just been delivered or of having a severe pelvic trouble, depend on certain normal sensations.

The changes in the external configuration are quite often felt. The cranium is very often said to be soft and yielding to pressure; again it is stated that the thorax has fallen in or is deformed, the shoulders not in the proper place, either too high or too low, the limbs are abnormally large or long. A young lady believed she was abnormally ugly and to have an ape's cranium. She roughly outlined its form with sagittal median eminences and claimed to recognize an ape's face in the mirror. A patient acutely ill claimed to feel the right leg on the left and the left on the right, another to have more than four arms of very different lengths. Another patient became acutely ill with attacks of the most intense somatopsychical perplexity and disorientation. Although held by several strong men, he could scarcely be prevented from gouging out his eyes with his fists. The hæmatomas remaining after the attacks, by which the uninjured bulbi were covered, showed the location of his worst sensations, of which the patient likewise had no memory. Whereas, in a lucid interval so called, he stated the worst thing in his seizure had been the indescribably terrible feeling of no longer knowing the relation of the trunk, head and limbs to each, which was above and below, right or left. A few seizures of the kind resulted in profound dementia. The patient of a family with strong hereditary taint, died in about a year from progressive paralysis. The idea of being abnormally small or abnormally large, is particularly common to paretics. The delusion of some physical transformation, *e. g.*, a woman into a man, or into an animal, seems to depend in part on the sensation of changed configuration of the body.

It is to be regarded as psychosensory paræsthesia of the senses, when the patients say they are dazzled and claim they cannot see. We have become acquainted with the insensibility to pain, *e. g.*, in the patient above mentioned, who pounded his face to demonstrate that he felt no pain. Pains of hypochondriacal origin are frequent in

the insane. They complain that they are prodded out of bed with pointed knives, that they are electrified, tortured, tormented, their limbs are broken, etc. The pains are often more definitely described as burning, glowing, boring, tearing, throbbing. Painful muscular contractions are explained by electrical shocks. A patient of Kahlbaum's complained: "Why do you dish me out so?" as she saw the attendants apportioning the soup. These are all undoubted examples of psychosensory hyperæsthesia of the general feeling. I have heard the statement from patients, who are in the habit of holding the head up from the pillow, bent forward when in the recumbent posture, that they had the feeling that their head fell backward. The maintenance of abnormal positions, which we will later meet with frequently in a certain class of patients, usually has its origin in an identification disorder of the sense of position. It may be the same with the so-called hypochondriacal paralysis, of which I remember an example of right hemiplegia with mutism at Charité. The autopsy of this case was negative.

The sensation of cohabitation, of which female insane very often complain, must be regarded as a complex sort of psychosensory identification disorder of general sensation. It is rarely possible to obtain a more definite explanation and it is then stated either the feeling of a hard body moving back and forth in the vagina, or it is a matter of a combination of hallucinations of the dream-like variety, in which tactile and general sensations unite in the whole act of cohabitation. A similar event is described by male patients as handling or grasping the sexual organs, and projected outward. The complaint of sexual indignity by male patients is very often heard.

Indefinite paræsthesias of general sensation, probably combined with abnormal muscle and organic sensations, are those of being drawn, *i. e.*, the whole body is drawn in a certain direction, a sensation which occurred in one patient as a reflex sensation, when he looked at the gas jet burning under the ceiling. Further, the feeling of swaying, being raised or falling, perhaps in part to abnormal identifi-

cation of the feeling of dizziness, further to the delusion of being able to fly. The latter idea was held for months by a case I observed at Charite, and led, among other things, to the awkward situation, that the patient climbed a tree in the garden and swung on much too weak branches, so that a dangerous fall seemed unavoidable. The employment of the fire hose only resulted in the patient changing his position and therefore it had to be abandoned as useless. But it all came out right, for the patient descended after being left entirely alone and the garden cleared.

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# CLINICAL AND PATHOLOGIC CHANGES IN DEMENTIA PARALYTICA DURING RECENT DECADES.\*

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IN various quarters of the world, but especially in Germany, for some time past attention has been called to the fact that dementia paralytica has, during recent decades, been changing its character more or less essentially. In various articles I have also called attention to this fact.<sup>1, 2</sup> It seems well to consider this matter again and in some detail, especially in America, where it seems to be little known. Unfortunately it must be said at once that the comparison is not always statistically proved, unfortunately not even by myself, and that when figures are at hand they are not always to be directly depended upon. For example, with reference to etiology, it is known that formerly little attention was given to lues and thus it was rarely met, in complete contrast with the present; while on the contrary formerly much was said of trauma and alcoholism which, now as causes, play a very modest role. But, above all, formerly cases were regarded as paralysis that are now called something else.

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\* Translated from the mss. by Charles Gilbert Chaddock, M. D., professor of diseases of the nervous system, St. Louis University.

1. Nacke: *Die Sogenannten ausseren Degenerationszeichen bei der progressiven Paralyse der Manner, etc. Allgem. Zeitschrift fur Psych., etc.*, Bd. 55, p. 557. (1899).

2. Nacke: *Ueber einige makroskopische Gehirnbefunde bei Mannlichen Paralytischen* *Ibid.* Bd. 57 (1900), p. 619.

In comparison, as we shall see, all depends on whether cases of the same locality, race, and condition of life are compared.

The next question is whether paralysis has become more frequent. Almost all observers answer in the affirmative, without, however, offering strict proof. Only Krafft-Ebing has demonstrated this with great probability. The same is true for all other psychoses, which, by the majority of observers, without further proof, are regarded to be on the increase, though it cannot be strictly demonstrated; however, it is probably true.

With reference to etiology we cannot state positively whether in the course of recent decades a displacement of one or another of the causes has taken place, especially whether lues as a cause—more correctly only as a predisposing moment—is probably more frequent than formerly, which seems to be quite the case. At the present time, with Mendel we may regard precedent syphilis as present in about 75 per cent of all cases. At any rate this much is certain, that it is not the only cause of paralysis, as Jschasch, Mobius, etc., also contend. I know of no case in literature in which this is strictly proved. Rather I hold with Mendel and others that lues is only a predisposing moment which saturates the body. Various other accidental causes, for the most part usually combined, bring on the outbreak of the disease—especially emotional disturbances. Indeed, I go a step further! In various articles,<sup>3, 4, 5</sup> I have sought to prove that paralysis probably in the majority of cases affects a brain of lowered vitality *ab ovo*; and such a brain naturally is attacked more readily by the poison of syphilis than a healthy brain. The great number of external and internal stigmata as well as other indications point to this. This hypothesis gains more and more foundation, and even men like Schule, de Sanebis, etc., have often spoken in favor of it. It is further supported by the fact that generally according to my experience<sup>4, 5</sup>

<sup>3</sup> Nacke: Einige "innere" somatische Degenerationszeichen bei Paralytikern, etc. *Allgem. Zeitschr. für Psychiatrie*, etc. Bd. 58.

<sup>4</sup> Nacke: Paralyse und Degeneration. *Neurologisches Centralblatt*, 1899, Nu. 24.

<sup>5</sup> Nacke: Die Rolle der erblichen Belastung bei der progressiven Paralyse. *Neurol. Centralblatt*, 1900, Nu. 16.



the great role of hereditary taint in paralysis is more and more recognized. Among my patients I have found 45 per cent of hereditary taint; and many others report similar figures. Further, I have found that the great majority of my luetic paralytics were hereditarily tainted, which seems to show that syphilis seeks its victims in just exactly cases of this kind. Of course it must be assumed that there is a very special brain-constitution in the paralytic, yet unknown to us, but for the most part congenital, since of syphilitics in general remarkably few become paralytic or tabetic.

If we now turn to the disease itself as a whole, comparative examinations will show perhaps that the disease now runs a more insidious and therefore a longer course than formerly, and this brings about a longer prodromal stage. Whether the time between luetic infection and the outbreak of the disease has become longer is unknown. Of our patients, on an average it was ten years or more; on the other hand, it is now generally assumed that the whole duration of the disease has become longer. Formerly a duration as an average was reckoned from two to three years; with us it has been in general about three years and more; indeed, those of ten years' duration and more occur. In such cases paralysis began earlier, for the most part between 36 and 40 years. It also democratizes itself; it sinks deeper and deeper among the people. While formerly it was a disease of the higher classes, the contrary becomes more and more apparent. Thus there are of our patients 55 per cent uneducated and 45 per cent educated. Similarly women are more frequently attacked. In some asylums the proportion is even one male to three females. However, it must not be forgotten that the disease in woman is now better recognized than formerly, for she is extremely liable to suffer with the dement forms, which may be confounded with melancholias, and certainly are thus confused.

However, it is striking that above all the form of paralysis has essentially changed. As is well known various types of course have been described, Mendel having differ-

entiated six. It is best to differentiate two principal types: a type emotionally excited, *i. e.*, the classic, typical paralysis, and a type that is for the most part quiet and demented, in which, of course, mixed forms occur. At the present time almost everywhere the dement form seems to be met more frequently. Of classic paralysis we have noted only 30.5 per cent. But at the same time the classic form runs its course more calmly. The severe maniacal cases that we formerly saw so frequently are now but rarely observed. At the same time, too, the number and severity of paralytic attacks have diminished. This is less certain with regard to remissions. Mendel asserts, that in the excited form they are more frequent. Whether this is true or not, I cannot for the moment say with regard to my cases, though it is probable, since the classic form grows less frequent, and therefore in general remissions must be less frequent; and this seems to be in harmony with the facts. Whether the seizures are more profound and longer I cannot say; probably they are not. For myself, I have repeatedly seen remissions lasting from six months to one year. In one case the patient was a philologist, and for six months during the remission he was able to perform his duties in the highest classes of the gymnasium. In another case of a celebrated professor of anatomy, during nine months he was so lucid that he gave his lectures well, and during this time published various scientific articles.

If we now turn to the clinical side, we must first consider somatic symptoms. Whether the relation of the pupils and tendon reflexes have changed from what they were formerly considered to be, I do not know; likewise I cannot make a positive statement with regard to the disturbance of speech. It seems to me that the differences in the size of the pupils and the disturbances of speech which were formerly so frequent, have now become less frequent, and the same thing is true of pronounced variations of innervation of the facial and other nerves, like tremor of the face and tongue, and of the fingers. On the other hand, grinding of the teeth and movements of masti-

cation have decidedly decreased in frequency, and likewise that of leaning to one or the other side (hemiparesis), which formerly was quite usual. Perhaps in contrast the tabetic symptoms have become more frequent. Formerly, especially in the beginning, headache was complained of, which now is abnormally infrequent. A change of the tone of the voice, which, according to Mendel, often occurs in paralytics, I formerly scarcely observed, and quite as infrequently blindness or scotoma—but naturally there was no ophthalmoscopic examination—though according to Mendel in about 12 per cent of the cases atrophy of the optic nerve occurred. From this it is readily seen how symptoms vary locally. Too, trophic disturbances have become decidedly less frequent. Now decubitus occurs much less frequently, which is not alone due to better treatment, for it occurs in spite of the greatest care. Still less frequent is othoematoma, which, contrary to Gudden, also certainly occurs without violence. Too, I have not seen fractures of the ribs or other bones in a long time. Cases of hyperidrosis, excessive salivation, and scaly skin, etc., are also more infrequent. Now retentio urinæ is abnormally infrequent. Motor power is longer conserved, as is the condition of strength in general. The patients become bed-ridden relatively late, and die now almost always as a result of marasmus rather than as a result of pneumonia, etc.

As has been said, the paralytic attacks have diminished in number and intensity. Of a hundred patients, only fifty-three attacks are noted up to a late stage of the disease. However, perhaps many such attacks are overlooked, since many now pass scarcely noticed as slight attacks of vertigo, for example: the *status epilepticus* has become abnormally infrequent. Whether, in contrast with earlier conditions, paralytic or epileptic attacks have increased or diminished is difficult to say, and much depends in any case upon the cases themselves that are compared. For, as I have repeatedly emphasized, every country differs in certain details from others; indeed, certain portions in a given country differ from other portions of it. Thus for example, in Germany the severity of certain symptoms and

their prominent grouping are quite varied. In a strict sense, one cannot speak of a "German" paralysis which differs from the "French," etc. With us, for example, salivation is decidedly less frequent than in France (Marie), and Mendel has called attention to various differences. But the same is true of all psychoses in general. Differences of race and surroundings play here an important role. If, therefore, one wishes to speak of alteration of a psychosis, it is absolutely necessary to compare similar cases of like material and of like places. It seems to me as if the true paralytic attacks, at least those that are clearly so, in comparison with apoplectiform attacks, have become less frequent. It is certain that both have diminished in severity in general. One scarcely sees paralyzes now. The epileptic attacks are for the most part isolated, and are less severe. Certainly the forced movements which occur occasionally after severe attacks are modified.

Too, on the psychic side changes have occurred. The grand ideas are no longer so well developed and numerous as formerly, though their character has not been essentially changed. Hypochondriacal and persecutory ideas are now less frequent; still less infrequent, however, are errors of the senses; but states of fear and sitophobia, perhaps occasionally katatonic symptoms, like stupor, negativism, catalepsy, etc., have grown more frequent. At least at the present time the latter seem very noticeable to me. In bed-ridden patients I have for a long time remarked a peculiar stiffness of the neck, in which for hours, days, and even weeks at a time, the head is pressed forward on the chest, so that it is free from the pillow. Frequently I have seen short periods of acute confusion, which had not been preceded by a seizure.

Thus there is no cause for wonder that the pathologic-anatomical conditions have changed. Details will be found in my articles. I found, for example, in only 42 per cent of the cases the cranium appreciably thickened and increased in weight, also in 52 per cent the diploe entirely or in greater part unaltered, and only in 13 per cent the dura attached to the cranium. Formerly such alterations were



much more frequent. True pachymeningitis hemorrhagica interna of various degrees I now meet only in 75 per cent, while formerly it was a very common finding. Its greater infrequency is now recognized by all observers, while Courtney<sup>6</sup> finds it in 20 per cent of cases of paralysis and of alcoholism, and in 20 per cent of cases of senility and various other forms of dementia, figures which are not attained among our patients. From this it is evident that in America clinically and anatomically paralysis runs a course very different from that characteristic of it in Europe. In our experience pachymeningitis hemorrhagica interna in other psychoses is very remarkably infrequent, even infrequent in alcoholics.

Formerly the pia was almost always cloudy and thickened and could only be taken away in tatters. At the present time I find the pia in twenty-five per cent of the cases macroscopically normal to all intents and purposes, delicate and scarcely thickened. Still more important is the fact that in 72 per cent of the cases the membrane can be pulled off without loss of cortical substance, even when the autopsy is made late. Formerly attachment was accepted as a dogma. Too, our figures given above should certainly be increased, for it has been shown, first by Wernicke, that in autopsies shortly after death in paralytics the pia may be easily removed. But Wernicke goes much too far when he says that this is constant. At any rate decortication is wanting in three-fourths of all my cases. Moreover, it was formerly customary to regard as always characteristic of paralysis, first, atrophy of the cortex; second, dilation of the lateral ventricles with effusion; and third, granulation of the ependyma. But the notion of "cortical atrophy" is very subjective—we know much too little of the normal thickness of the cortex of the most important convolutions. Thus I found in 20 per cent of my cases of paralysis where the diagnosis was absolutely certain that the cortex was entirely or almost entirely of normal thickness, and at the same time, of these cases eight

<sup>6</sup> Courtney: Hemorrhagic internal pachymeningitis in the insane. *The Alienist and Neurologist*, 1903, N. 1, p. 14.



had a duration of more than two years. In these cases, of course, the ventricles were not dilated. I observed decided dilation of the ventricles and very marked atrophy of the cortex in 14.6 per cent of the cases. Granulation of the ependyma was wanting in 15.6 per cent, and it was slight in 15.6 per cent. Formerly I observed the contrary in all cases. Thus it is now certain that brain-atrophy, ventricular dilatation and granulation of the ependyma are much less frequent than in cases that formerly came under my observation, and this is also true of oedema, and so-called hyperemic points in the centrum ovale. In the articles cited I was the first to show the exact relation of atheroma of the temporal artery to atheroma of the basilar arteries and of the heart. Whether in such cases earlier changes occurred I cannot say, for formerly I paid less attention to these things. In my article I further said: "There is, at the present time, no single pathognomonic macroscopic sign in the brain of paralytics, nor any microscopic sign." For the saturation of the cortex with leucocytes, stated by Nissl as absolutely specific in paralysis, has not yet been confirmed by others, and the same is true of the so-called specific relative leucocytosis of the cerebro-spinal fluid in paralysis, lately emphasized by Joffroy.

Clinically we have known for a long time that there are neither specific, somatic, nor psychic symptoms, but that the only characteristic thing is a certain combination of various clinical symptoms. No other conception is possible, as long as under the term "paralysis" we group a number of diseases which probably will be later differentiated. The view of Parisian observers seems to be the most correct, that paralysis—or more correctly speaking, paralysees, that is, pseudo-paralysees—is the result of various endogenous and exogenous poisons. It is especially in this disease that there is much that speaks for intoxication.

We have thus seen how dementia paralytica has changed clinically and pathologically in a relatively short time, which also, as was remarked earlier, is true of other psychoses. I have tried to study the matter in my cases,

but unfortunately for the most part I have been forced to draw my conclusions from impressions only, for I have figures only covering a recent period. Others have also made similar observations, but not always with the same details, for paralysis varies quite markedly in accordance with the locality. What then is the origin of this remarkable fact? It would be rash to say that this is due to the fact that lues has become more frequent. The latter even admitted, it would not be explained why also the character of other psychoses has gradually changed, like the other infectious diseases (diphtheria, measles, typhoid, etc.), and many other somatic ailments. There are only three possibilities: first, the *milieu* has changed; second, the individual predisposition; third, both at the same time. The individual can scarcely have changed in the course of two or three decades. Thus the first possibility is all that remains, and here again in the first place changes in the quality and quantity of endogenous and exogenous poisons, or combinations of them, are to be considered. We are familiar with the varying virulence of the poison of diphtheria, for example. Elements of the *milieu*, on the other hand, play a less important part, for even the element of time in this relation has been too short. At any rate the way is widely opened for hypotheses.

Hubertusburg, March, 1903.

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# THE PENITENTES--A PSYCHOLOGICAL STUDY

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By MARC RAY HUGHES, M. D.

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THE vicissitudes of character and changes of mental environment that we have occasion to make ourselves familiar with, both through our own personal observations during the present time and through our historical researches of ages past,—the ages of witch-craft, hallucination and delusion: when reason was scattered to the four winds and fanaticism in all of its forms held full sway among the psychically weak in the dark days of the middle ages,—when innocent people were accused of crimes so grave in character as to place their necks in the noose of the scaffold and their tortured bodies broiled over the simmering fires of the pit.

So it was with those mental degenerates, who accused their brethren of crimes impossible as it is with the Penitentes, their mental stability was minus and delusion reigns supreme.

The Penitentes of Old and New Mexico who have held our attention upon the subject of penance for some time past, commit a crime against the laws of nature, while in their own deficient minds they seek to glorify the Almighty God by their own sacrifices.

Should they be censured, cast down and condemned, or forgotten and their degenerate minds allowed to continue on and on in non-restraint? Should they be pitied as we pity the unfortunate inmates of an asylum whose er-

atic tendencies they have fallen heir to with the stigmata of degeneracy resting upon them?

Let us look to the history of penance, whose origin dates as far back as the early part of the Christian era, possibly shortly after Constantine defeated his adversaries, whose downfall was the result of the basest of paganism, though the orders of penance that exist throughout the world today differs vastly from the ones of Old and New Mexico.

Theologians, especially of the Catholic faith, are familiar with the founder of this order whose name it bears, St. Francis of Asisi, though when he founded his holy order of penance it was not his wish nor did he ever imagine that such use of the order would be made by followers of, and believers in, Catholicism. In founding this order he distinguished it from the other orders founded by himself by calling it his third order, he being the founder of the order of Capuchans, and the order of penance he founded for a definite purpose. He realized the necessity of atonement for sin and the need of universal charity and he sought by instituting these various orders to meet the obstacles of the religious world. When he founded this order in the year 1221 it was not his wish or intention that such barbarism as has been displayed by the Penitentes of Old and New Mexico would be the reigning feature of the order after it came to this continent, or that such torture would be its chief end, though that is what it seems to have led to in Old and New Mexico. Their customs, like those of the Flagellants of earlier times, were not orthodox or in keeping with the rituals of the church nor are the customs of these degenerates sanctioned by the followers of St. Francis. Those who took the robe of the penitential order of St. Francis did so of their own free will with the feeling that atonement and forgiveness of sins should be brought about by penance, and wishing to live a life apart from the world they joined the order that they might not only deprive themselves of the pleasures of this world, but live a life of charity and kindness and be of

service to those who suffered in sickness, and charitable to the needy.

We see from the history of the third order that it was meant to be one of kindness, love and charity to humanity in general, and as I go over the subject from a purely psychological point of view I wish to make myself clearly understood that I may not incur the displeasure of those followers of St. Francis who look upon but one side of the subject, nor do I wish myself understood in any other light than that one which shows a liberal minded view upon the subject based upon unprejudiced study and research.

I do not consider, of course, the followers of the third order, psychological studies, that is the regular members, but it is the out-shoots from the order of penance, the psychically weak who have found a mecca in New Mexico. It is their degenerate minds, and muddled intellects I seek to fathom. They of course are no longer looked upon as belonging to the order and their heathenish practices are against the teachings of the church.

Is there a well-balanced mind that could believe in the rituals of the "Penitentes" whose degeneration has led them to carry their absurd ceremonies to the grave? The very thought is enough to make people of sound mind wonder, that in a civilized country, so to speak, crucifixion and the severest kind of torture could go on unmolested, right here before our very eyes. It seems queer and naturally leaves behind a blot upon the history of civilization of this country to be eradicated only by the flight of time.

Why these Mexicans and half-breeds became degenerate will be shown as we consider the psychological aspect of the subject. The same status or nearly the same as to mental condition regarding direction of mental forces, exist among these people and other fanatics as we find in the diversion of mental power of ones called genius.

In studying human nature we are forced to conclude, if we observe closely, people whose mental capacity seems to dwell upon one certain thing or upon one line of thought until that line becomes a constant accompaniment, also be-



coming instead of mere perception and thought,—delusion bearing.

Their actions both of mind and body are governed thereby accordingly as is shown in instances of fanaticism such as is displayed in the rituals of the "Penitentes" and others of their mental status.

No doubt it is difficult for some to suppress the inherent tendency of disclosing their mental weakness and showing to their fellow-beings the taint of heredity, while many on the other hand have adroitness enough in their personalities to keep within themselves their mental deficiencies without showing to any great degree or extent the aberrant impulses or proclivities.

We assume that few minds are perfect, not even that of a so-called genius, but on the contrary it is vastly deficient because the mind is developed to such an extent in one direction that, that respective portion of the brain is over developed, and naturally can not be in harmony with the workings of the less developed portion. The result of such a condition would be likened to the operation of parallel forces acting in opposite directions.

Let us take for example some form of genius (*ex.* Blind Tom) say that of music. There the mind is stimulated in the one direction only. That is to say, it is a great deal farther developed along that line than is the other part of the brain on any other subject. You will notice in conversing with these forms of genius, their conversation is anything but an animated one, unless you touch upon the subject of music, then on the other hand it is all animation. I do not wish to say that the ordinary so-called genius, the one we see every day, can not hold an animated conversation for one of that kind could, but that is not a true genius.

As I speak of the relation of the mental capacity and direction of mental force of the "Penitentes," I speak also of the same existing phenomena in regard to direction and stability of mental force as presents itself in the genius. I speak of the real genius, not a person simply talented along one particular line, for there is a vast difference be-

tween genius and one of talent. However a person of great talent might become a genius if certain conditions existed within the mind, though the mental power of the individual would suffer by the increased ability in that one direction.

The reason of inanimation of conversation in genius and others whose minds are similarly developed, the train of thought being along one line is this: Their minds are more attentive to their own thoughts than to your words and your words make wrong associations, though of course that is beyond their control owing to the inability of the two forces of mental power to act in harmony. The centrifugal is deficient and the centripetal the stronger. In other words their association of ideas by word of conversation is lacking, hence all words will have more or less tendency to diverge their thought along most any line, but the right one, especially will they associate themselves with things musical. Their conversation at times may be clear but it does not impress itself with firmness, if the conversation be upon any subject other than music, because your words instead of associating their ideas with incidents relative to your own thought, associate themselves with incidents directly or indirectly musical, as their minds are working in that one direction only, hence it is the same with the "Penitentes"; their mind works in one channel, and thus we come to consider the psychological aspect that presents itself in the minds of the degenerates of Old and New Mexico.

Whether duality of mind plays a prominent part with these people, that is to say whether the subjective mind is weak and autosuggestion governs the objective mind making these people obey their insane delusions, is a question not yet settled nor is it likely to be for some time to come.

These people to begin with are of the lower type of civilization and naturally their minds are on a lower plane of development, for while still children, a time when the mind should be allowed to take in all percepts and the objective mind allowed to be cognizant of all normal happenings and not allowed to partake of the things that would

excite the mind and leave a deep impression on the objective mind, they are allowed to become familiar with this exciting fanatical belief and instead of the teaching of the sect drawing them nearer and nearer to civilization they are gradually approaching the state of barbarism.

From infancy almost, their one thought is upon penance and as they grow up it becomes more deeply fixed in their mind. I might put that in another way, by saying: Through constantly coming in contact with this fanatical exhibition, the objective mind taking cognizance of every step, soon becomes fixed not only in the objective mind but in the soul, or the subjective mind.

The centrifugal and centripetal forces play an important part in the formation of the condition that is present in the deluded minds of these people and thus their mind becomes fixed upon one subject. That is to say one objective percept that is taken in is that of penance and the trend of thought being so steadfastly upon that one subject owing to objective perception, that the centrifugal force loses its power, and there the two forces no longer harmonize. One force becomes so much stronger than the other that it completely overbalances the other. The centrifugal force, which is in plain words the balance wheel of the mind, becomes deranged through incessant activity in one line, and instead of centering relevant percepts to be given over to the centripetal force for distribution, it holds but one individual percept or one common group of percepts and that group pertaining to the subject of penance.

So it is with these people who torture themselves and who have crucified their brethren, their mental power is weak for lack of proper training. Their brains have not been allowed to develop in a natural way; their thoughts have been all one-sided and this one thought has dwelt with them so long that it has become constant and has resulted in a firm fixed delusion, where nothing but civilization and culture of the fathers to be handed down to their posterity will ever eradicate the appalling condition that now exists among them. This alone may instill in them a

new lease of mental life, and the future generations may be looked upon as civilized beings instead of psychical degenerates. Thus may they throw off the yoke that now bears them to the ground, that bars them from the society of civilization, and may cast from them into absolute oblivion the stigmata that has rested over them for decades past and the name that would designate them the "Penitentes; The Children of a Degenerate Race."

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## A NEW ÆSTHESIOMETER.\*

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**I**N January, 1897, Lewellys F. Barker, M. B., exhibited to the Johns Hopkins Hospital Medical Society the test hairs employed by Professor von Frey in studying pain and pressure sense. These consisted of short wooden handles of suitable length, to which finer and coarser hairs were fastened at one end at right angles with sealing wax. Hairs of different strength are obtained from the scalp of men, women and children; hairs from the beard, from the horse's tail and hog bristles are also of service where stronger stimuli are required. The advantage of these test hairs consists in the very small surface of skin acted upon, and in the possibility of grading accurately the intensity of the stimulus applied. "In order to test the stimulus-value of the hair, its area in cross section must be determined, as well as the weight which can be lifted by the hair when it is pressed with its cross section against one of the scale pans of a delicate balance." With time and patience, said Dr. Barker, a set of such test hairs can be prepared varying in stimulus-value from 0.1 gr./mm<sup>2</sup> to 300 gr./mm<sup>2</sup>, though, as Professor von Frey says, the preparation of them is "nicht jedermanns Sache."

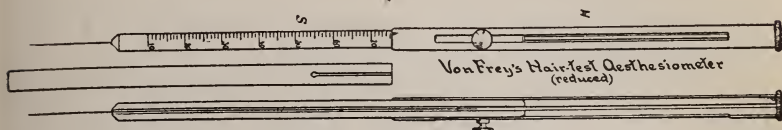
It consists of a long hair pushed through a capillary tube of very narrow lumen, much like that of a thermometer tube; the hair can be shoved through the lumen easily, but on pressure only the part of the hair outside of the capillary tube can bend, and the force exerted is always greater the less the amount of hair outside the tube, and feebler the greater the length of hair not inside the capillary tube.

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\* Editorial abridgement of article in *Johns Hopkins Hospital Bulletin*.



The form of the hair and its mode of action were shown the society by Dr. Barker and are illustrated in *Johns Hopkins Bulletin* for June, 1897, and a set of hairs was passed around which were prepared under Professor von Frey's direction in Leipzig in the spring of 1895.



Recently, however, Prof. von Frey, with the aid of the mechanician, Zimmermann, has prepared a simple instrument which, for purposes of clinical examination at least, will take the place of the set of test hairs. This æsthesiometer, which depends upon the same principal as that involved in the construction of the test hairs, has the advantage that with a single hair one can obtain a large series of pressure values at will.

The mechanism is shown in the cut reduced. The capillary tube consists of a brass tube, S, of very narrow bore, over which a sheath, H, glides with slight friction. In the axis of the sheath, and of the same length as this, runs a wire, which fits in the bore of the tube, S, and at the end of which the test hair is fastened. If the sheath be shoved entirely over the scale the hair projects in its greatest length, and has accordingly only very slight force. On the other hand, if the sheath be drawn back as far as possible the greatest part of the hair disappears within the bore, and the short still projecting part is capable of exercising very considerable pressure force. By means of a screw the sheath can be held firmly in any position corresponding to a test hair of any desired length. There is a millimetre scale on the tube, by the help of which a given length of test hair can always be found again, together with a protecting tube for the free end of the hair to complete the instrument.

The testing of the hair for its pressure values at dif-

ferent lengths can be carried out with the aid of a delicate balance, and if one makes determinations for every fifth or tenth line of the millimetre scale he can easily calculate the values for the intervening lines. With this instrument it is easy to pass from very low pressure values, even below the threshold for the most delicate pressure points, to pressure values above the pain threshold in parts of the body where the pain threshold is high.

The value of this instrument was demonstrated by Dr. Barker with Dr. Cushing in the wards of Johns Hopkins Hospital. They mentioned a case in which ordinary slight stimuli appeared to call forth pain constantly, the idea had arisen that pressure sense was absent, the pain sense being very much exaggerated. It was easy with this instrument to show that the pressure sense was not abolished, though the threshold for pain was almost at the same level as the threshold for touch. With care, however, the pressure points could easily be made out. The significance of careful examinations in such cases is obvious, for it would be easy for the clinician to make the statement that tactile sense was destroyed in a given case in which in reality it was unaffected or but little affected. If such a case should come to autopsy, one might be entirely misled in interpreting the lesions found.

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EDITORIAL.

*[All Unsigned Editorials are written by the Editor.]*

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THE ISTHMIAN CANAL PROJECT.

GEN. LEONARD WOOD is quoted as saying that the only serious problem in the construction of the isthmiian canal is that of sanitation. This work will afford a splendid opportunity for demonstrating upon a large scale and in a striking manner the practical value of the modern practice of preventive medicine. A number of medical societies have lately expressed their belief that the services of skilled hygienists should be engaged in this great undertaking. The most forcible expression upon this matter which has so far appeared is that of the American Association for the Advancement of Science, presented by Dr. Wm. H. Welch on January 2, 1903. These resolutions say in part: "The measures for the restraint of these diseases

require expert knowledge; based upon practical familiarity with tropical diseases, experience in the application of these measures, and large authority in their administration. The mere employment of a sanitary expert will not be likely to secure the desired results."

These words point out the probable futility of any half-hearted recognition of the offerings of practical hygiene toward this special work. The medical profession should see that the sanitary service engaged in the canal works is fully adequate in the *personnel*, equipment, and authority, and if it is in any respect too feeble to make good the anticipated results, we should be ready to indicate the probabilities of failure.

Our country is rich enough, possibly, in men and means to cut a water-way between the oceans in spite of yellow fever and malaria, and we are shrewd enough, perhaps, to earn a profit on an unnecessary expenditure of both money and life. The abandoned project was characterized by unparalleled waste of money and by frightful and uncontrollable loss of life.

We need not fear that our own undertaking will be attended by scandalous misuse of funds; but in the light of the younger day economy of human life seems, if not a condition of success, a paramount obligation of a great and enlightened people.

The New York Academy of Medicine has also passed resolutions recommending that the medical officers of the isthmian canal shall have ample powers to execute practical sanitary measures at the canal works, and that a sanitarian shall be a member of the commission.

A medical officer in the cabinet of the president would see to these necessary matters without outside suggestions. As it is now the profession must plead like mendicants for what is their due and the people's right.

MAJOR JOHN S. MELLON, a Confederate veteran and well-known scientist, died at his home from a complication of diseases, after an illness of eight months. The burial was at Hannibal, Mo.

Major Mellon was 83 years old. He was born in Loudan County, Virginia, and was the son of a rich planter. He left home when 16 years old.

In 1848 he crossed the plains to California driving an ox team, and there became rich from gold discoveries. He engaged in the banking business in that State, and afterwards in the same business at Louisiana, Mo.

He served in the Confederate Army in the South, and was noted for his skill. For three years he was the Commissary General of the Army of Mississippi, under General Beauregard. He bore the rank of Major.

He was the first man to use the pontoon bridge in the South. An incident of his career happened at Granada, Miss., when he put to flight an army of several thousand men by having twenty-two Southerners under his command ride back and forth across a long bridge, thus making the opposing rank think they were about to be attacked by a large force.

Major Mellon organized the first society of Confederate Veterans in St. Louis, and for many years was its commander. He is also the father of the Confederate Home at Higginsville, Mo.

Major Mellon was a doctor and was constantly investigating into the causes and treatment of disease. Many years ago he published an article in a local paper on the subject of cholera, claiming that it was the result of microbes, and giving reasons. This article led Pasteur, the Frenchman, to investigate along these lines, and in a book which he wrote he says he first gained the idea of the germ theory from Major Mellon's article.

He is survived by his wife and three children. The children live in Denver, Colo. They are Miss Laura Mellon, Mrs. Regis Chauvenet and Mrs. John Triplett.

A DEPARTMENT OF COMMERCE AND LABOR has very properly been added to the department of State and its Secretary, Mr. Cortelyou, becomes a member of the President's Cabinet.

Agriculture is also a department of state. When will



medicine and sanitary science, the equal of any in importance to the country, be similarly recognized and provided for?

It will be when the medical men of the country who avert its pestilences and fight the threatening diseases of the people and care for stricken presidents when, they fully "their rights and duties know," in the business, "and knowing dare maintain them." Or shall it be tacked on to the labor department or the agricultural department or the marine hospital science, and walk behind the plowman and the traders?

PROFESSOR NOTHNAGEL, who holds the chair of clinical medicine and therapeutics in the University of Vienna, has been nominated a life member of the Upper House of the Austrian Parliament.

THE United States Civil Service Commission announces that the commissioner of pensions would like to provide for the appointment of twenty-five young students of medicine as clerks or copyists in the pension office. Only graduates of recognized medical schools will be allowed to take the examination.

THE WISDOM OF THE INCREASE AND MULTIPLY advice of President Roosevelt depends on the increasers and the multipliers. The ill fed, vicious, immoral neuro-paths of the poverty flats and "Clabber Alley" districts of our large cities increase and multiply humanity too much already for the good of the race. Such increase of the unfit entails even now on the supervising and governing classes the full measure of their philanthropic remedial powers.

Instead of it being a calamity it is fortunate that the vicious, nerve and brain damaging pleasures and vicious soul destroying indulgences in the life of so many develop an aversion to the propagation of their undesirable kind in the world. The stress of modern life demands the breeding of only strong organisms, its excesses and strenu-

osities tend to make weaker still and obliterate the weak. The fear of Malthus, of over-population fortunately is by modern conditions of family degeneracy and aversion to increase of children made groundless. Too many of the unfit are born into the world now.

To populate with "job-lots" of defective neurotically damaged children is not a wise proceeding. Good sized families of the right sort are not objectionable in an exuberantly and fertile and prosperous country, but not among a brain strained and brain broken trust and vice enchained people.

The President's injunction is wise for one class and unwise for another. The heart free, the mind free and the prosperous and virtuous can not be too prolific for the welfare of a nation. But the spirit-bowed, brain-strained and viciously neuropathic may breed too much.

Fortunately Nature, by laws which neither Presidents, Potentates nor Legislatures can materially alter, puts her ban of tardy but final extinction upon families neuropathically depraved beyond Nature's power of redemption and starts the renewal of the race from the better fit to propagate and endure.

NATURE must have anticipated the rapid transit car and the sky-scraper elevator when she provided the cerebro-spinal fluid and the excellent anatomical arrangement for the fluid, ventricular and perivascular space, baths of the arteries, brain and cord to protect them against concussional violence, but she did not calculate on the modern unskilled motorman and the elevator boy to run the shocking contrivances.

ARTIST'S FEARFUL CRUELTY TO BRUTES.—It may be doubted whether the dictates of fashion have ever led to anything more cruel and repulsive than the practice described in a French medical publication as the one adopted to procure those sinister-looking animals whose fierce and hideous attitudes are reproduced in the jewelry worn today by fashionable Parisian beauties. The artist who provides

these morbid designs lives in a village near Paris, and in different cages keeps cats, rats, and many other animals whom he slowly starves to death. Though he lives among his victims, the artist has grown callous to their cries, and as the wretched animals writhe in their agony he gets the horrible and fantastic forms he desires for the jewelry destined to adorn the beautiful women of the French capital. If anything could be more incongruous than this practice when brought into contrast with the gentle and sympathetic traits usually ascribed to women, it would be difficult to say where it could be found. It is charitable to believe that the women who wear such jewelry are not aware of the methods by which it is produced.—*Leslie's Weekly*.

APPENDICITIS DINNER.—Novel dinners have been numerous this season, but none so unusual as the "Appendicitis Dinner" given Tuesday night by Miss Emily Rosenstirn.

All the guests had been operated upon for appendicitis, but not until they entered the dining-room did the guests become aware of the particular tie that made them all akin.

The table was decorated with a suggestion which all present had undergone. Upon a miniature equipped operating table, which held the center of the board, lay a blonde-haired doll, sheet enshrouded. All the appliances for an operation were at her side. With his little wax hand upon her little wax pulse stood a doll in the white cap and uniform of a surgeon. Near by was a small stand on which were all manner of surgical instruments. Little rubber tubes ran to the chandelier, where were fastened hot-water bags.

To remind the guests that this was an occasion for rejoicing and that they had successfully passed through an ordeal similar to that pictured before them, the rest of the decorations were violets, daffodils and maidenhair.

When the recent victims of appendicitis were seated, there was much merriment, mingled with amused exclamations. Then the score of guests congratulated one another.

A PSYCHORAGIA EXPERT. Mrs. Ballington Booth in a new role.

The tender-hearted wife of the Salvation Army officer, as is often the case with the tenderly emotional minded, especially among women, has allowed her heart to get the better of her judgment and caused her to make an euthanasic suggestion with reference to apparently moribund victims of railway accidents similar to that which from probably a different motive emanated from the first Napoleon to be rejected with vigor and scorn by the great dictator's great surgeon-in-chief, Baron Lowrey.

She has glanced at the little glass case holding the saw and hatchet for use in emergency. Mrs. Booth asked herself why the railroad companies have so far overlooked another precaution which might save life and lessen suffering.

"Why not equip every train, or, better still (she says), the conductor of each train with a small case containing chloroform, ether, stimulants, bandages, lotions for bruises and antiseptic solutions for the washing of wounds. The equipping of each train with these things and a surgeon or two is a good suggestion, but heaven save us from a train crew lot of diagnosticians and surgeons when passengers are stunned into semi-unconsciousness and supposed "dying agonies." Such a train crew of untrained and lawfully unwarranted practitioners might prove more dangerous to life than the wreck itself and release the company from responsibility for damages in court.

The suggestion of Mrs. Booth is timely, however, if not safe in detail. The railroads should supply the right details, viz: A surgeon or two and a trained nurse or two for every train and accessible surgeons along the line within easy telephonic or telegraphic reach, in every contingency of accident, and supplies for surgeons on each train.

It would hardly do to supply conductors of every train with chloroform or other anæsthetic to allay the pain of those who are "inextricably pinned beneath the wreckage or fatally injured," in the judgment of the non-professional on-looker,



as Mrs. Booth suggests, but surgeons and trained nurses, directed by them, should be there to administer needful hypodermic anodyne and timely sustaining medication and to diagnose and save the savable from the hopeless.

The heart of the woman has been mercifully touched by the unprecedented number of parsimoniously caused maiming and life-destroying railway accidents in the United States and so has the heart of all humanity not sclerosed beyond normal feeling and impulse by the rival dividend-making fever of our railroads. So long as American railroads continue to overwork men till they are brain tired and make fatal mistakes in consequence, so long will the heart of humanity protest, till protest takes the shape of action in proper regulation by law.

The strenuous life of an engineer or a train dispatcher should be better guarded than now by railroad superintendents, through securing for such the means of getting regular hours, ample nutrition and abundant sleep. The breaking of the sleep into half periods is horribly unphysiologic. The hand on the throttle and the ear at the ticker should not be over-weary with extra work or from broken sleep, but alert and strong with the buoyant vigor of brain cells well and timely nourished and rested by previous adequately prolonged sleep.

The tired head and hand have wrecked many a train, saddened many a household and spoiled the figures of even the dividend calculator sometimes.

It might be an unspeakable comfort to bystanders, as well as the sufferer, if those dying in agony could be rendered unconscious by a few breaths of a merciful anæsthetic, as Mrs. Booth says, if the law allowed it and the skillful diagnostician who could tell with certainty the difference between a real and apparent dying man, decided the question of anæsthesia and skillfully gave the anaesthetic. But a better remedy would be to prevent the accidents by conserving the brain qualities, through wiser treatment, better pay and wiser selection of the railroad men.

Rivalry and enthusiasm for efficiency and life and limb



safety, should supplant the rivalry for superior earnings. When railroad corporations shall put in force or ask for and receive legislation requiring double tracks for all roads and no surface crossings and sanitary hours of service, sanitary habits of employes, from president down through general superintendent, traffic and passenger managers, train dispatchers, conductors, engineers, trainmen and yardmen, but above all, level headed, well rested, vigorous brained train dispatchers, engineers, conductors and brakemen. The tender hearts of our better souled women will not be hurt and harrowed by the daily ghastly, heart-bleeding, soul-sickening details of railway wrecks that thrill the land with horror and strike our homes with terror, desolation and despair. The thought of the brave engineer, held beneath the iron wreckage of his locomotive, scalded by steam and yet awfully alive to every torture of slow-coming death, which causes the tender heart of Mrs. Booth to seek and suggest a remedy, is but a modicum of the spreading, paralyzing miseries that pall our land with long continuing sorrows when lives go out on trains that go to destruction.

Good woman, your plea is the prayer of the bleeding heart. The black dress and somber veil of the widows and the orphans are the background of the painful picture you pleadingly paint. May your fifty letters touch the hearts and pursestrings of the fifty railroad presidents to whom you have written and bring forth fruit, not only in better provision for the personal safety of now imperiled people who go on trains, but in real dividends on the railway ledger, so near the heart of railway presidents, through people saved, sorrow averted and damage suits diminished, and even in that farther off reward to the average dividend deviser, a dividend credit on Heaven's final account for good deeds done and regard for the welfare of fellow man. The golden rule applied to business and a good one as the immaculate son of man, engineer of the moving world, before men manned railroads and dividend problems distorted the hearts of men, gave forth.

the publication of a high-class Medical Directory—correct, comprehensive, attractive and influential—is appreciated by the profession is proven by the cordial reception given the 1902 edition of the Standard Medical Directory of North America and the promising auspices attending the 1903 edition now in active preparation with the aid, so the publishers state from actual computation, of nearly twenty-five thousand correspondents representing every State, province, county, city and town of any size in North America. The new volume will consist of about 1300 pages comprising complete Directories respectively of the Physicians of all North America colleges, societies, hospitals, sanitariums, mineral springs, publications and in fact everything related to medicine. The new features (including an Alphabetical Index of Physicians with Post Office Addresses and Rosters of Practitioners and of the Specialists) will, it is stated, add about one-third to the volume of the work.

HOW are the mighty fallen. The son of Thomas A. Edison announces the Magno-Electric Vitalizer to give energy to the nerves and health to the body and cures everything.

THE BOSTON MEDICAL AND SURGICAL JOURNAL'S seventy-fifth anniversary.

"The first issue of the *Boston Medical and Surgical Journal* as a weekly Journal under that title appeared February 19, 1828; with this year and this issue, therefore, the Journal celebrates its seventy-fifth anniversary even to the day of the month.

"From February, 1828, to February, 1903, there have been a continuous weekly issue, of the *Journal* without intermission. Through all the changes and chances of medical journalism during that long period, the *Journal* has favorably held its own and kept uninterruptedly on its useful and meritorious way.

"In another form the *Journal* antedates the year 1828. It was the product of a combination between two other

medical publications, namely, the *New England Medical Journal*, a quarterly, begun in 1812, under the control of Drs. John C. Warren, Walter Channing and John Ware, and the *Boston Medical Intelligencer*, which was started as a weekly journal in 1823, by Dr. Jerome V. C. Smith. After the consolidation of these two periodicals in 1828, under the control of the former managers of the *New England Journal*, the *Boston Medical Journal* was not only the first to live but for many years the only weekly medical journal in this country.

THE TEMPLE OF AESCULAPIUS DISCOVERED. The *Lancet* announces the discovery of the shrine of Aesculapius, by Dr. Rudolph Herzog. It was found under an ancient Byzantine church in the island of Cos, in the Aegean Sea, the seat of the cult of Aesculapius and the birthplace of Hippocrates. A statue of Hygeia, a serpent's image, and columns of the temple have been found, the latter bearing this inscription in Greek: "sundry elders from the different States have decided by vote to carry on the holy asylum of Aesculapius." Further excavations are being made.

THE NEXT (thirteenth) annual meeting of the American Electro-Therapeutic Association will be held at hotel Windsor, Atlantic City, N. J., on Tuesday, Wednesday and Thursday, September 22nd., 23rd. and 24th., 1903.

THE RANK AND POWER OF THE RUSSIAN VETERINARY SURGEON.—The steamer on which Nicholas Senn, the eminent American surgeon of Chicago, made part of his trip around the world, via Siberia, as detailed in his interesting book, was detained at Blagovestchensk "for a whole day, with more than two hundred passengers on board," to await the arrival of the chief veterinarian of Russia, a government official bearing the title of general.

The surgeon-general of the American regular army ranks no higher. Is it not time the rank of the surgeon-general were moved up at least a grade and place made

for a representative of the American medical profession in the cabinet of the President? Let the medical profession get together and demand and secure its just rights and recognition in the government.

THE WORLD'S FAIR REFRIGERATING PLANT—THE COOLING OF THE WORLD'S FAIR.—The artificial cooling of a great exposition in the summertime will be one of the wonders of the St. Louis World's Fair in 1904.

Two climates will mingle at the international show, and the transition from one to the other will be but a springtime breath.

With the thermometer at 90 in the sun, a snowstorm will spread its amazing relief over the thousands of visitors from every country on earth.

Theaters of the Exposition can be cooled by unseen frost distributed through miles of underground pipes into the auditoriums.

The great Louisiana Purchase Exposition will make its own ice, cool its own drinking water, make snowstorms and skating rinks to order and keep its visitors comfortably cool by means of its own cooling plant.

This plant will be itself a twentieth century marvel worth the world's visit to see.

All the refrigerating machines on exhibition are to be utilized as live exhibits, in this cooling scheme of Mr. Voorhees, the managing director of this department. The world is to have a warm invitation to the Louisiana Purchase Exposition but an appropriately cool reception during the hot days of June, July, August and September, should there be any such. But St. Louis may have such a cool summer as it had last year. In such a case visitors will have to be content with the skating lake and snow showers as curiosities of summertime, with ice cream on the side. The St. Louis World's Fair of 1904 will excel all previous efforts as a commercial and manufacturing and agricultural display. Its predecessors at Paris, Buffalo and Chicago will not equal it in this regard or in tasteful ground decoration or architectural appearance.



It is a regrettable fact to men of science and literary tastes that the purely business and commercial features predominate in all of these expositions, and that other important interests that do not and cannot pay for concessions, like anthropology, ethnology, geology, astronomy, theology, literature, and the medical and metallurgical and sanitary sciences, receive so little consideration. Whatever of these interests can pay for building space like mining plants and inventions of course get a showing. But there are many interests, of an educational character, which do not get much of a showing at world's fairs.

This, in the interest of the world's education and progress, is to be regretted. But this fact will not prevent the coming Louisiana Purchase Exposition from being a record exhibition hitherto unequaled.

ALBERT KNAPP, THE QUINTUPLE INDIANAPOLIS MURDERER of women, two of them his wives, promises to be a study for morbid psychology and neurology, if the man is not too summarily executed.

Albert Knapp, when arrested, was suspected only of the murder of his wife, but confessed to five as follows:

Emma Littleman, killed in Cincinnati lumber yard, January 21, 1894.

Mary Eckert, a child, strangled to death opposite the Cincinnati Y. M. C. A., August 1st, 1894.

Jennie Connors Knapp, his second wife, murdered in Cincinnati, and thrown into the canal there, August 7, 1894.

Ida Gebhard, a child, assaulted and murdered in West Indianapolis, July 19, 1895. Her body was found several days later in a barn in West Indianapolis.

Hannah Goddard Knapp, his third wife, murdered at Hamilton, Ohio, and her body thrown into the Miami River, December 22, 1902.

He has also served five prison sentences for other crimes. A fourth wife, living, confesses to devoted affection for him.

Knapp's confession was voluntary coupled with the assertion that he did not know why he committed



the crimes. He is a study for the student of latent epilepsy, and neuropathic degeneracy and neurotic criminality.

While the best remedy for such criminal neuropaths is to eradicate the breed it would serve the cause of neuro-anthropological science if such before extermination were kept under skilled psychiatric and neurological observation that such neuropathic monsters might be better understood. The sexualization early in life of such should be a legally warranted safeguard for the good of society.

SIR HECTOR MACDONALD'S INCOMPREHENSIBLE CHANGE OF CHARACTER.—One of the difficult things to average comprehension is that in incomprehensible change of character which sometimes comes over minds once strong and brave and great after the involution and premature overstrain sets in and the high inhibitions cease to restrain the suggestions and impulsions of the lower centers of strong organisms perverted by the changes of neurone disease and decadence.

An example of such a case appears in the later days of Bonaparte and Webster, and lately has been repeated in the bizarre immoral conduct of the brave thirty-year battle tried Major-General, Sir Hector MacDonald, whose pitiable suicide, under charges of gross immorality, the British press has not yet ceased to discuss.

While the world wonders how a man of the glorious deeds of fighting Mac, the invincible soldier of more than thirty years of dauntless heroism mid tropic war and fields ensanguined, could fall so low, only the psychologist and neurologist, knowing the tenure of normal psychic neurones and neuroglia and how they break and act abnormally under the stress of over-action and astonish us by erratic and often erotic instability, can comprehend such minds.

MacDonald did things which were as much a surprise and chagrin to himself as to the friends and companions in arms who knew him best. This once manly hero, accustomed to face death as nonchalantly as the maudlin puppets who so lavishly censure him in his mental misfortune,

face a puppet show, burst into tears at the momentary realization in more lucid intervals of the enormity of his erratic impulses, hitherto regulated and restrained by the once strong high psychic centers which had on many a bloody field led serried columns to victory and renown for his country.

At the British war office the theory of insanity was quite generally held. It is a pity it had not been officially so held and an army commission of inquiry into the possible insanity of such an irreproachably gallant officer who could, after thirty years of exceptional probity and courage, do the insanely immoral things reputed to him.

The St. James Gazette, among all the critics of the gallant soldier, appears the most to approach the true psychological estimate of this apparently much misjudged affair:

"Thirty years of service in the tropics is bound to wear a man's nerve. His lamentable end is quite consonant with innocence in a rough soldier of great determination but unbalanced judgment."

And the *Alienist and Neurologist* is quite inclined to agree with the view of the Gazette.

The brain of a British soldier in constant service in the tropics is liable to break and when it fails in its higher psychic areas, when the normal inhibitions inside the lower centers may run riot and startled saner minds by otherwise unaccountable excesses.

THE NATIONALISTIC FEATURE OF THE MADRID MEDICAL CONGRESS was distinctively Latin, though names like those of Cajal and Caro were offset in the sections by the Waldeyrs and Van Gehuchtens not to mention the English and American names which were conspicuously in evidence for meritorious contributions, the Spanish men of the congress were eminent ones, the most eminent of whom was the distinguished Cajal, who has done so much to advance neuro-anatomical and neuro-physiological conception and neuro-medical thought.

The next meeting will be held at Portugal, the third one in a Latin state.

The United States, at Madrid was represented by Drs. Nicholas Senn, Howard Kelley, Calvin Gates Page, J. Z. Powell, J. D. Griffith, J. N. Scott, A. Ravogli, R. Harvey Reed, L. A. Xavier, Andrew H. Smith, Davidson Smith, H. W. Wurdemann, I. N. Wear, A. E. McDonald, Chas B. Nancrede, Henry Kughler, Dr. Ring, Waldo Johnson, C. S. Jones, Louis Sayer, W. Freudenthal, N. D. Harrelson, C. H. Hughes, Geo. I. Brown, Tekla Berg, Wilson O. Bridges, W. T. Carolin, Richard Douglas, John Huddleson, Geo. H. Catermole, Danert Gray.

Among the English gentlemen known to us were Sir Dyce Duckworth, Sir William Bailey, Renshaw, Sutherland, Ferrier, Granville Bantock, Alexander Mackay and Ian Macdonald. The latter read the best paper we heard in the section on pathology, demonstrating in a most satisfactory manner the habits and devastating sporulation of the culex mosquito. Ian Macdonald's paper was read in good Spanish, he practicing at present in Heulva, Spain, with Dr. Mackay. These with Dr. Pollock, of Glasgow, were among the English speaking members whom we ran across at the congress, by accidental and fortuitous meeting, not by any direction we could get from any registration or guide book. The daily "*Diari*" of the proceedings was inaccurate and gave no addresses of the members except in the final day supplement.

Doctor of Medicine Mandousky, surgeon of the good, well-officered steamer Princez Irene, showed us many courtesies on the way over and back and the Spaniards were courteous and kind, but some essential business methods were lacking. By these two bad methods some insignificant and absent men in medicine, or not in the profession at all, were given unmerited and unduly prominent places in the congress.

It gives us pleasure to mention Surgeon Emile I. Gam-borg Andresen, charge of affairs of the Legation of His Majesty, the King of Denmark, among others who extended courtesies to us and to thank the President and the Secretary of the Neurological Section, the latter having extended us the courtesy of the chair during a part of Wednesday's session.

The selection of Portugal for the next place of meeting will tend still further to emphasize and concentrate representation of the Latin-speaking people of the profession and their good work in the direction of medical discovery and advance and the Portugal meeting will no doubt be as great a scientific success as the Madrid meeting has been, perhaps even a greater one in reflecting the scientific lustre of the brilliant modern achievements, especially of the Latin races in our ranks.

A JUST JUDGMENT for Fairchild Brothers & Foster was rendered at the July Term of the U. S. District Court of Massachusetts against Walter L. Conwell, a pharmacist of Boston, restraining this pharmacist from dispensing pepsine essence of his own make in lieu of the genuine F. B. & F.'s better pepsine. This act of Conwell's was pronounced by the Court to be unlawful and fraudulent and the costs of the proceeding were assessed against Conwell.

WE ACKNOWLEDGE the receipt of "irregular menstruation, amenorrhoea and dysmenorrhoea" blotters of the Ergo Apol Company. What shall we do with them?

MEDICAL MATTERS and men in public affairs. The *Medical Age* contains these items:

The House of Representatives passed the pure food bill December 19. This bill prohibits interstate commerce in any article of food or drug that is adulterated or misbranded.

The American Association for the Advancement of Science petitioned the president, January 2, that one member of the Isthmian Canal Commission should be a physician.

The Lower House of Cuban Congress has offered \$400,000 to aid the city governments in the islands to continue the high sanitary standard achieved under American occupation.

The University of Freiburg has conferred the honorary degree of M. D. upon Gustav Fischer, of Jena, who as a medical publisher has brought out a large number of important medical books.

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## SELECTIONS.

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### CLINICAL NEUROLOGY.

HEREDITARY OR FAMILY OPTIC NERVE ATROPHY.—Lauber, Dr. Hans. (*Munch. Med. Wochenschrift*, December 9, 1902.) Lauber relates the histories of four brothers all of whom were subjects of atrophy of the optic nerve. The trouble commences usually at puberty, though it has been observed as early as the fifth year. It generally appears under the garb of a retrobulbar neuritis and rarely do we notice any swelling of the papilla. It is seldom acute and generally in a year it has run its course. Generally one eye after the other is attacked and usually some vision remains. Central scotoma is often present. The periphery of the visual field can remain normal. Therapy is fruitless. Males of the family are more prone to the affection than the females. The etiology is very obscure. Instances are recorded where the trouble showed itself in five generations. Possibly intermarriages among relations may be a factor.—*Annals of Ophthalmology*.

THE INFLUENCE OF THE CERVICAL SYMPATHETIC UPON THE EYE.—Levinsohn, Dr. George, Berlin. (*Archiv. fur Ophthalmologie*, LV. Band, I. Heft.) The author's experiments were made on monkeys and consisted in removing the superior cervical ganglion and also in simple resection of the cervical sympathetic. The question was whether the usual symptoms seen after the operations in this locality are more significant when the ganglion is removed or when simply the cervical sympathetic is resected, and secondly when factors are at work in the disappearance



of the symptom-complex. He found that both after extirpation of the ganglion and resection of the sympathetic different trains of symptoms resulted, which in time in great measure disappeared. The symptoms produced by extirpation of the ganglion were more intense than after resection of the sympathetic, still the recession in the first instance is much less intense than in the latter. But even after extirpation of the ganglion some of the resulting symptoms remained, which shows that the normal tone of the straight muscles supplied by the cervical sympathetic has been injured and at the same time there is a compensating lowering of tone in their antagonists. This lowering of tone for the dilator pupillæ and sphincter is proven beyond a doubt.—*Annals of Ophthalmology*.

A NEGRO DIET EATEN IN ST. LOUIS.—Della Randall, a young negress at the City Hospital, is in a precarious condition from having eaten a peculiar kind of clay which was found near her home at Clarksville, Mo. Supt. Nietert says the girl is so ill she may not recover.

While her parents were living, the girl says, they used to dig a yellow clay from the bank and take it to their cabin, where they prepared it by stirring it with water and sorghum molasses. She declares she became exceedingly fond of it, although she sometimes suffered when she ate too much.

The hospital surgeons believe her ancestors must have once lived among the clay-eaters of Virginia, from whom they learned the habit. It is believed her mind is affected.

PARA-TYPHOID—"Allusion has recently been made to a form of continued fever which possesses some of the characteristics of typhoid, but in which many of its typical manifestations are lacking.

This type of disease has long been recognized, but has been considered merely an abortive or mild form of typhoid. Recent investigations, however, have led us to infer that the two diseases are by no means identical, and that the

specific germ is an organism in character midway between the typhoid and the colon bacillus. In a recent issue of the *Medical Record*, Brill reports sixty or more cases of the disease in question, and shows that its etiology, pathology and symptomatology are characteristic and clearly defined, and these conclusions appear to have been verified by other investigators."—*New England Medical Monthly*.

ELEVATED TEMPERATURE IN CONDITIONS OF HEALTH.—The question as to whether an elevation of temperature is indicative of disease, has no doubt often presented itself to the clinical observer, and we doubt not that its solution has often proven most difficult and unsatisfactory. While little can be found regarding it in medical literature, the fact is, however, well established, that a considerable and persistent elevation may exist in conditions of health. This is particularly true in the case of children, in whom this phenomenon is most commonly observed. Several cases have recently come to our notice, in which an elevation of one or two degrees have persisted for weeks without any other signs or symptoms, and finally disappeared spontaneously, while under the observation of the attending physician. While such a condition may justly excite apprehension, it is nevertheless at times of no significance, and may arise from rapid tissue changes or a nervous system peculiarly susceptible to trivial toxic influences. \* \* \*—*W. C. Wile Editorial, in N. E. Med. Monthly*.

A more careful study of this symptom and the conditions under which it prevails might furnish welcome additions to medical diagnosis.

A CASE OF CEREBRAL TUMOR WITHOUT CHOKED DISC.—Anna, A., Klein-Rosseln, (*Inaug. Diss.*, Giessen, 1902.) Choked disc occurs on an average in 87.3 per cent. of cases of brain tumor. A. enumerates the theories as to its pathogenesis and the hypotheses, why it is not found in all cases. His case, observed at the psychiatric clinic of Prof. Sommer, belongs to the latter category and is reported in detail. The autopsy showed softening of the whole right

frontal and temporal lobes, surrounded by gliomatous infiltrations. A. thinks that the softening of the tumor with formation of cavities by resorption of the softened material prevented an increase of intracranial pressure and thus did not cause papillitis.—*Annals of Ophthalmology*.

ON THE CONNECTION OF CATARACT WITH GOITRE.—Becker, A. Gonsenheim. (*Inaug. Diss.*, Giessen, 1902.) B. reports, from the eye clinic of Prof. Vossius, 8 cases of cataract (in 7 bilateral), occurring in women, affected with goitre, at a relatively youthful age. In his opinion the connection of cataract with goitre is perhaps due to autointoxication, analogous to the occurrence of cataract in affections of the thyroid or after extirpation of the latter (tetany, Graves' disease, myxedema).—*Annals of Ophthalmology*.

THE ABSENCE OF THE PATELLAR REFLEX IN CROUPOUS PNEUMONIA.—M. Pfaundler (*Munch. med. Wochenschrift*, 1902, No. 29) finding the patellar reflex repeatedly absent in cases of pneumonia, looked up the clinical histories on this point for the last few years. Out of 200 cases the reflex was absent in 55 (27.5 per cent). Great depression or high temperature seemed not to have any bearing on this symptom. The author holds that it is due to a toxic influence exerted on the reflex circle. In other forms of pneumonia he did not find this symptom. He concludes that in genuine croupous pneumonia of children we often find the patellar reflex absent or reduced, sometimes before the appearance of the local symptoms. This symptom occurs oftener than herpes labialis, and in positive cases can be of diagnostic value.—*Medical Age*.

SPINAL ANAESTHESIA WITH TROPA-COCAINE.—Neugebauer (*Wienerklin. Woch.*, No. 50-52, 1901, abstracted in *Centralblatt fur Chir.*, 1902. No. 31) states that Schwartz has reported very satisfactory results with this drug in doses of 0.25 c.cm.; Bier has had a similar experience. The solution should be freshly prepared each

time. The instruments should not be laid in carbolic solution before use, for in two cases in which this was done poison resulted. Anesthesia usually begins at the end of a minute, and appears first in the perineum, then the genitalia, the posterior portion of the thigh, the feet, the legs, and finally in the inguinal and abdominal regions. In the lower extremities one may be sure of absolute anesthesia of the skin incisions, and almost always of the deeper tissues and bones. The serosa remained painful in a Bassini operation and also in an extirpation of the rectum. The anesthesia remained longer in many cases in operations on the extremities in the leg which was full of blood than in the other one, in which the circulation was normal. In thirty-nine cases a 0.005 c.cm. solution was used with success, and in eighteen cases 0.006 c.cm. The author states, in conclusion, that the freshly prepared dose of 0.05 or 0.06 c.cm. of tropa-cocaine is an absolutely sure and harmless method of inducing anesthesia of the lower extremities, perineum and neighboring regions.

ACUTE (TROPHONEUROTIC) BONE ATROPHY FOLLOWING INFLAMMATORY AND TRAUMATIC LESIONS OF THE EXTREMITIES.—P. Sudeck says that inflammatory lesions and traumatism of the extremities may be followed by an acute bone atrophy, which is usually very persistent. In addition to the bone atrophy there may also be present an atrophy of the soft parts following traumatism. As a rule, all of the bones on the peripheral side of the lesion are involved in the atrophy. This atrophy is to be regarded as trophoneurotic, arising reflectively from the peripheral irritation. At first the radiographic picture, as shown by the Röntgen ray, is characteristic. The spongiosa shows the presence of a large number of small spaces, arranged in groups so that the whole has a dappled appearance. Later the cortical portions of the bone show numerous similar spaces. The most prominent symptoms are stiffness, pain and loss of motion in the affected parts. The diagnosis rests primarily upon the etiology and the radiographic picture as described above. As a rule,



the prognosis is unfavorable, more or less loss of motion and stiffness prominently remaining. Under appropriate treatment, however, a few cases proceed to complete recovery. During the acute stage the affected parts should be immobilized. Just as soon as the pains subside, however, massage and exercise should be begun. Localized hot baths are also very useful in relieving the stiffness at this stage. If the massage and exercise give rise to pain, they should be discontinued, as under these conditions, additional irritation is caused thereby. It is important that a careful differentiation should be made between this condition and tubercular or syphilitic bone affection, since the treatment of the latter, when applied to this form of bone atrophy works irreparable injury.—*Deutsche medicinische Wochenschrift*. *New England Medical Monthly*.

A CASE OF TRAUMATIC TETANUS successfully treated by antitetanic serum. By Gould A. Shelton, M. D., Shelton, Conn. [Proceedings of the Connecticut Medical Society.] W. J——, aged 14 years, fell down a cellar stairway to the earth flooring, receiving an incised wound of the third finger of the right hand. A kind neighbor washed the finger, and having wrapped it with material at hand, the boy continued his play for the remainder of the day. On the ninth day following the injury, he complained of stiffness in his back, with an increasing rigidity of the jaws.

Tetanic convulsions, increasing in severity, for three days held the boy in their rigid embrace. The serum was not at hand, and could not be obtained; two days more passed before it was available.

The frequency and severity of the convulsions increased each day until they averaged one every five minutes, and even oftener, upon the slightest cause.

Up to the commencement of the serum treatment no progress toward recovery had been made, while on the contrary every symptom with increasing severity threatened an unfavorable ending.

Through the fortunate loss of one tooth liquid food in



sufficient quantity to support the patient was administered, thus maintaining a very satisfactory amount of strength.

At 9 p. m., October 5, I administered hypodermatically 10 cc. of Parke, Davis & Co's Antitetanic Serum. The shock disturbed him to such a degree that chloroform to partial anesthesia was resorted to, at each injection thereafter, with more pleasing results.

On the following day, October 6, three injections were given. A favorable change was clearly marked in the longer intervals between the convulsions, their lessened severity, and more quiet sleep.

On October 7 two injections were given. At this stage the evidence of positive relief was most marked; on October 8, the improvement having continued uninterruptedly, the concluding hypodermatic dose was given at 11 p. m.

From this time on each day presented encouraging symptoms. Restful sleep lent its aid, the appetite returned, tonics and mild nervines gave their restorative assistance, and my note of October 17 records the patient as eating and sleeping well, with no symptoms of tetanus remaining, beyond a little stiffness of the muscles of the left hip. The patient was under the care of an intelligent and well trained nurse, whose observations were reliable, and every symptom was carefully noted. Immediately previous to the antitoxin treatment the temperature was 101°, pulse 110, and respiration 34. It can be observed, in estimating the value of the Antitetanic Serum in this case, that although five days had passed, with constantly increasing symptoms, before the serum treatment was employed, the improvement began early and continued uninterruptedly to the end of the convalescence.

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## CLINICAL PSYCHIATRY.

THE ETIOLOGY OF DEMENTIA PARALYTICA IN SWEDEN.—At the fourth Scandinavian Congress for Internal Medicine, which met at Helsingfors, Finland, in July this year, Dr. Marcus stated, after going over the opinion<sub>s</sub>

on the subject held in different countries, that the idea that syphilis is the chief cause was gaining more and more ground. He reported his study of over 400 cases of this disease treated in the hospitals of Sweden during nine years, from 1887 to 1896. He emphasized that it was only among people of the higher class that one could get reliable, anamnestic information, and he had made a separate account of what one etiologically would ascertain among these classes of people. Syphilis was found in not less than seventy-five per cent of the cases, and from a couple of hospitals for insane, where the information obtained was especially accurate, the report was eighty-seven per cent. Hereditary disposition to mental diseases was just as frequently met with in dementia paralytica as in other forms of insanity. One can, however, not deny the possibility of the influence of other causes upon the development of general paralysis, but everything spoke for the opinion that syphilis was essential to its development. This opinion was well supported by the fact that arteritic changes, especially in the aorta, were found in nearly all these cases, and they had the appearance which is considered specifically characteristic of syphilis.—*Hospitalstidende*, Sept. 3, 1902. *Abstracted for Occidental Medical Times*, by A. W. Hoisholt, M. D., Stockton, Cal.

LIGATION OF BRANCH OF LEFT MIDDLE MENINGEAL ARTERY.—Patient of Dr. D. C. Handley. The man received a blow on the left parietal region of the head in a rear-end collision on a street-car. Following the accident he was unconscious for hours. He was seen by one or two surgeons, who thought he had nothing but a concussion of the brain. I saw him at the end of forty-eight hours, at which time his mind was rather sluggish. He had no recollection as to what had occurred. There was no depression of the skull whatever. I made at that time a diagnosis of cerebral hemorrhage, but was not able to say whether extra or subdural. I removed a portion of the bone in the parietal region, and in the opening I could find no pulsation of the dura. Upon opening the dura from

three to four ounces of a bloody dark fluid escaped, and a clot about the size of a tablespoon presented itself in the incision; it was plano-convex in shape, rather oblong. It was necessary in this case to ligate one of the branches of the middle meningeal artery. After the operation was performed the paralysis disappeared in a few hours and the man returned to consciousness, making a rapid recovery. As to whether there was a fracture present or not I am unable to say, as I did not use the drill. The bone was taken out in fragments. However, when the periosteum was removed I passed my finger along the bone and there was indication of fracture, but no depression.—*Cin. Lan. Clin.*

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## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

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LES OBSESSIONS ET LA PSYCHASTHENIE, PAR LES PROFESSEURS F. RAYMOND ET JANET. Avec 22 Graveurs dans la texte. Paris. Felix Alcan, Editeur. 1903.

This book is a vast receptacle for clinical histories of patients with all kinds of obsessions, fixed ideas, alphas, phobias, deliria of contact, tics, insanities of doubt, imperative conceptions, impulsions and neurasthenic whims. It is such a book as only two French authors could have written, for, even though others had had the clinical opportunities to gather together all this mass of biographical detail, it is doubtful whether they would have had the patience to chronicle it. The work may be called an encyclopedia of obsessions. Anybody can find in it almost any kind of an obsession that he wants. From the simple neurasthenic to the most pronounced victim of a dominating impulse; from the woman who has an "algie de l'anús" (with very bizarre results) to the lunatic who has genital hallucinations about the eucharist; from the agoraphobic and claustrophobic to the dipsomaniac and the pyromaniac, all are here. Every poor devil under the sun who has ever known what it is to be haunted by an imperative conception, can find his likeness in the pages of this book. After glancing through it (for one can hardly take the time to read it in detail) one sees that brusk old Dr. Samuel Johnson, with his mania for tapping posts, was a mild type of the impulsive crank. He is not to be compared with the choice examples set forth by MM. Raymond and Janet.

The book is of enormous bulk, containing about 540 closely printed pages, and is made up largely of very prolix biographical and clinical histories. Hence, it is not a book

to be approached in a light mood; but, as we have said, it is encyclopedic, and furnishes a mine of cases for all psychiatrists who are looking for frightful examples. The high reputation of the authors will give the book currency as a work of reference, and their treatise will be likely to remain unique, for we imagine no one will ever have the hardihood to attempt to rival it. [J. H. L.]

#### COHEN'S "A SYSTEM OF PSYCHOLOGIC THERAPEUTICS"

is on our table. This volume is by Drs. Joseph McFarland, Henry Leffmann, Albert Abrams and W. Wayne Babcock, and is devoted to Prophylaxis, Personal Hygiene, Civic Hygiene, and Care of the Sick. It is an epitome of what is essentially the Natural History of Medicine; including the important facts thus far learned regarding the origin, dissemination, and prevention of disease. Use has been made of every available source of information.

The importance of the subject, the thoroughness of the work, and the special clearness and timeliness of the study of immunity should secure for this volume generous welcome from the medical profession of this country. A careful examination justifies the commendation of this journal.

PHILIPPE PINEL—A Memorial Sketch by David F. Lincoln. Boston 1903.

All readers of the *Alienist and Neurologist* will be interested in this reminder of a signal epoch in the history of the care of the insane.

Accompanying this memorial is a reproduction of the celebrated painting of Pinel striking off the fetters of the patients at the Salpetriere in Paris.

Through Dr. Edward Cowles of the McLean Hospital, we acknowledge our indebtedness to the generosity and philanthropic donor, Mr. James Munson Barnard, who thus gives expression to a just feeling of reverence for a man whom the world owes a debt of gratitude.

ANATOMY OF THE BRAIN AND SPINAL CORD, with special reference to the Grouping and Chaining of Neu-



rones into Conduction Paths, For Students and Practitioners, by Harris E. Santee, M. D., Ph. D. Professor of Anatomy in the College of Physicians and Surgeons, Medical Department, University of Illinois; Professor of Anatomy in Harvey Medical College, Chicago. With a preface by Wm. T. Eckley, M. D., Professor of Anatomy in the Medical Department and Dental Department of the University of Illinois. Third Edition Revised and Enlarged. E. H. Colegrove, Chicago, 1903. Price \$2.00.

This is a reliable and accurate book for the student of the brain and cord with the subject before him or with a good book of illustrations to accompany it. The descriptions are terse and clearly given from nature. The book has but two illustrations and its value would be enhanced if more profusely illustrated.

LA PSYCHOLOGIE CRIMINELLE par Prof. Paul Koval-evsky, M. D. Membre Honoraire de la Société de Médecine Mentale de Belgique, Membre Honoraire de la Société de Médecine de Hollande, Corresponding Member of the New York Academy of Anthropologie, Membre de la Société Médico-Psychologique de Paris, etc., etc. Paris. Vigot Frères, Editeurs, 23, Place de L'école de Médecine. 1903. Tous droits réservés.

The scope of this excellent book may be seen in the following table of contents: Evolution de la théorie sur le criminel-né; Causes de la criminalité; Symptomatologie générale de la criminalité; Symptomologie spéciale de la criminalité; L'homme criminel assassin; Les criminels-nés voleurs; Le vagabondage; La femme criminelle et la fille publique; La pathologie de la criminalité; L'insanité morale; Caractère hystérique; Caractère épileptique; La lutte contre la criminalité.

The first two chapters discussing the criminal born, hereditary criminality and the causes of crime and criminality are the best and most important in the book. But every chapter will interest the psychologist of criminality and criminal psychopathology. Price 6 francs.

The eminent merits of this distinguished author are

known world-wide through his previous contributions to neurological, psychological and legal medicine, the same authority being the author of the following excellent treatises: *Hygiène et traitement des maladies nerveuses; Ivrognerie, ses causes et son traitement; Epilepsie, traitement, assistance, et médecine légale; La Migraine et son traitement.*

**TUBERCULOSIS.**—By Addison W. Baird, M. D. Communicable. Preventable. Curable. Popular presentation of the subject with 30 illustrations. February, 1903. Published by James T. Dougherty, 409-411 West 59th Street, New York Branch: 3&4 East 26th Street) Paper, 10 cents, post paid. (After the manner of Lantern Lectures for the Board of Education and Charity Organization Society Tuberculosis Committee.

These pictures are real and truly object lessons which should put physicians, the daily press and the public on the alert for the stamping out of this great white plague.

**Three Months Office Experience in the Treatment of Chronic Dysentery.** Read before the Mississippi Valley Medical Association, Kansas City, Mo., October 17, 1902. By John L. Jelks, M. D., Memphis. Surgeon in Pelvic Diseases to the Shelby County Poor and Insane Asylum; Surgeon to the Old Men's Home; Fellow of American Proctologic Society.

**Renal Decapsulation for Chronic Bright's Disease.** By George M. Edebohls, A. M., M. D., New York. Professor of the Diseases of Women, New York Post-Graduate Medical School and Hospital; Surgeon to St. Francis Hospital; Consulting Gynecologist to St. John's Hospital, Yonkers, N. Y.; and to the Nyack Hospital, Nyack, N. Y.

**My Experience With Formalin in Surgery.** By John L. Jelks, M. D., Memphis. Surgeon in Pelvic Diseases to the Shelby County Poor and Insane Asylum; Surgeon to the Old Men's Home; Fellow of the American Proctologic

Society; Member of the American Medical Association, the Mississippi Valley Medical Association, the Tennessee State Medical Society, the West Tennessee Medical and Surgical Association, the Tri-State Medical Association of Mississippi, Arkansas and Tennessee and the Memphis and Shelby County Medical Society.

Report of Twelve Operations on Infants and Young Children During Spinal Analgesia. By William Seaman Bainbridge, A. M., M. D. Attending Surgeon Randall's Island Hospitals, Adjunct Professor of Surgical Anatomy and Operative Surgery in the Post-Graduate Medical School and Hospital, New York.

Paralysis of All Four Limbs and of One Side of the Face, with Dissociation of Sensation, Developing in a Few Hours and Resulting from Meningo-Myeloencephalitis. By Charles K. Mills, M. D., and William G. Spiller, M. D..

Eighteenth Annual Report of the Board of Managers and Superintendent of the North Texas Hospital for the Insane, Terrell, Texas. John S. Turner, M. D., Superintendent. From September 1, 1901, to August 31, 1902.

Dr. Wm. Lee Howard on "The Perverts." By R. W. Shufeldt, M. D., New York City. Member of the Medico Legal Society, New York City; Member L'Alliance Scientifique Universelle de France; etc.

The Involution of the Appendix; Acute Suppurative Appendicitis as a Sequel Thereto; A Report of a Series of Cases with Deductions. By Horace Packard, M. D., and J. Emmons Eriggs, M. D.

Twenty-Third Annual Report of the State Hospital for the Insane, S. E. District of Pennsylvania, Norristown, Pa., for the Year Ending September 30, 1902.

Determinate Factors in the Cause of Insanity. Re-

marks made at the Fifty-Third Annual Meeting of the American Medical Association in the Section on Nervous and Mental Diseases, at Saratoga, N. Y., June, 1902, in Discussing the Paper by E. G. Carpenter, M. D., of Columbus, Ohio. J. T. Searcy, M. D., Tuscaloosa, Ala.

Eighth Biennial Report of the Trustees and Medical Superintendent of the Northern Indiana Hospital for Insane at Longcliff, Near Logansport, for the Biennial Period Ending October 31, 1902.

Essentials in the Treatment of Laryngeal Tuberculosis. By Robert Levy, M. D., Denver, Colo. Professor of Laryngology and Otology, Gross Medical College..

Biennial Report of the Directors and Superintendent of the West Virginia Hospital for the Insane at Weston, from October 1, 1900, to September 30, 1902.

Pelvic Deformity in New York City. By James Clifton Edgar, M. D. Professor of Obstetrics and Clinical Midwifery in Cornell University Medical College.

Experimental Research on the Heart of the Dog, With Reference to Cardiotomy and Cardiorrhaphy. By Benjamin Merrill Ricketts, Ph. B., M. D., Cincinnati.

Twenty-Seventh Annual Report of the Managers and Officers of the New Jersey State Hospital at Morris Plains for the Year Ending October 31st, 1902.

A Report of Two Cases of Cancrum Oris. By William Seaman Bainbridge, A. M., M. D. Attending Surgeon Randall's Island Hospitals, New York.

The Construction of Asylums in Tropical Countries. By P. C. J. Van Brero. Physician to the Government Asylum at Buitenzorg, Java.

The Effect of Climate on Laryngeal Tuberculosis With



Special Reference to High Altitudes. By Robert Levy, M. D., Denver, Colo. Professor Laryngology, Rhinology and Otology Denver and Gross College of Medicine; Laryngologist to Arapahoe County, St. Anthony's Hospitals, and National Jewish Hospital for Consumptives.

Cancer of the Uterus in the Mississippi Valley. By Emory Lanphear, M. D., Ph. D., LL. D., St. Louis, Mo. Chief Surgeon of the Woman's Hospital of the State of Missouri.

Communicated Insanity or Phychic Infection. By J. W. Wherry, M. D., of Clarinda, Iowa. Assistant Physician Clarinda State Hospital.

The Criminal Responsibility of the Epileptic. By John Punton, M. D., Kansas City, Mo. Editor of the "*Index Lancet*," etc.

Tent Life for the Demented and Uncleanly. By Arthur B. Wright, M. D., Manhattan State Hospital, East, Ward's Island.

The Mental Status of Czolgosz, the Assassin of President McKinley. By Walter Channing, M. D., Brookline, Massachusetts.

Annual Report of the Managers of the Western Pennsylvania Hospital, the Department for the Insane at Dixmont, for 1902.

Fifth Annual Report of the Managers of the New Jersey State Village for Epileptics, for the Year Ending October 31st, 1902.

Ninth Annual Report of the State Asylum for the Chronic Insane of Pennsylvania for the Year Ending September, 1902.

Second Annual Report of the New York State Hospital



for the Care of Crippled and Deformed Children, for the Year Ending September 30, 1902. Hospital located at Tarrytown, N. Y.

Forty-Seventh Annual Report of the Trustees of the Northampton Insane Hospital, for the year ending September 30, 1902.

Remarks on the Significance of Some Nervous Signs and Symptoms. By Charles Gilbert Chaddock, M. D., of St. Louis.

The Influence of the Cervical Sympathetic Upon the Eye, With two Cases of Paralysis. By William Cheat-ham, M. D.

Periduodenal Abscess Secondary to Ulcer of the Duodenum. By William Seaman Bainbridge, M. S., M. D., of New York.

The Treatment of Non-Paralytic Strabismus; a New Operative Procedure. By J. H. Woodward, B. S., M. D., New York.

Twenty-First Annual Report of the State Hospital for the Insane at Warren, Pa., for the Year Ending November 30, 1902.

Forty-Ninth Annual Report of the Trustees of the Taunton Insane Hospital, for the Year Ending September 30, 1902.

Twenty-Ninth Annual Report of the Superintendent of the Cincinnati Sanitarium for the Year Ending November 30, 1902.

Seventh Biennial Report of the Board of Trustees of the Delaware State Hospital at Farnhurst, December, 1902.

Tent Life for the Tuberculous Insane. By C. Floyd

Haviland, M. D., Manhattan State Hospital, East, Ward's Island.

Seventh Biennial Report of the Eastern Indiana Hospital for the Insane for the Period Ending October 31, 1902.

Views Suggested by the Study of the Etiology of Puerperal Eclampsia. By J. K. Bauduy, M. D., LL. D., St. Louis.

Annual Report of the Protestant Hospital for the Insane, Verdun, Montreal, Quebec, for the Year 1902.

Fourteenth Biennial Report of the Board of Managers of State Hospital for Insane No. 2, St. Joseph, Mo.

Eighty-Ninth Annual Report of the Trustees. Parts Relating to the McLean Hospital at Waverly, 1902.

Report of the State Hospital at Morganton, N. C., from December 1, 1900, to November 30, 1902.

Report of the Connecticut Hospital for the Insane for the Two Years Ended September 30, 1902.

Some Cases of Functional Nervous Disease. By Chas. G. Chaddock, M. D., St. Louis, Mo.

The Treatment of Bronchitis and Coughs in General. By Dr. I. N. Love, New York, N. Y.

Provision for the Criminal Insane. By William Francis Drewry, M. D., Petersburg, Va.

Some Problems of Preventive Medicine. By Burnside Foster, M. D., of St. Paul, Minn.

Hyoscine in the Treatment of Morphinism; its Office

and Value. By George E. Pettey, M. D., of Memphis, Tenn.

The Anæmia and Chlorosis of Women. By L. H. Warner, A. M., Ph. G., M. D.

X-Rays as a Therapeutic Agent. By A. V. L. Brokaw, M. D., St. Louis, Mo.


Surgical Melange. By B. Merrill Ricketts, Ph. B., M. D., Cincinnati.

Heart Suture. By Merrill Ricketts, M. D., Cincinnati, Ohio.

Annual Report of the Memorial Home, 1902.

Mental Hygiene. Orpheus Everts, M. D.

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PAIN AND ITS REMEDY.—By J. D. Albright, M. D., Philadelphia, Pa. Believing that the bar in the way of the profession, in the use of opium, is its tendency to evil after-effects, and the harum-scarum idea that a little opium will induce the habit, and those terrible concomitants (?) I wish to call their attention to a preparation that I have long been using, and have not yet seen one case in which the habit was formed, nor ever had any complaint as to evil after-effects. This remedy is papine, a preparation of opium from which the narcotic and convulsive elements have been removed, rendering it a safe remedy for children, as well as for those of mature age. \* \* \* Up to a year ago I always gave chlorodyne tablets and viburnum for after-pains. Then I came across a case that refused to yield to them in the time I was accustomed to have them do so, and I concluded to try papine. Its results, to make the story short, were such that I now never give anything else for after-pains, and they yield in about half the time that was required with the above-named remedies.—*Medical Summary.*

THE MILWAUKEE JOURNAL thus discourses like a psychologist and a neurologist and brain and mind saver: Greed for gold is a conspicuous evil of our time and country. We want money to burn; wealth to squander. It appears as if some men, and women as well, vie with each other in thinking out original and striking ways in which to make their wealth conspicuous. They imagine that they thus aggrandize themselves. It is something to be grateful for, that there is a growing sentiment in favor of saner





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FINAL DECREE, enjoining John H. Eberhart et al. from selling substitutes for Fairchild's Essence of Pepsine.

At a special term, part I, of the Supreme Court of the State of New York, held in and for the County of New York, at the county court house, in the Borough of Manhattan, in the City of New York, on the 22d day of October, 1902.

Present: Hon. James A. O'Gorman, Justice.

FAIRCHILD BROTHERS AND FOSTER,	} <i>Plaintiff,</i>
a corporation,	
against	
MATILDA EBERHARDT, AUGUST F. EBER-	} <i>Defendants.</i>
HARDT and JOHN H. EBERHARDT	

The summons in this action, dated the 15th day of August, 1902, and the complaint herein, verified the same day, having been duly served on the defendants on the 16th day of August, 1902, together with an order to show cause containing a preliminary injunction against the defendants, dated the 16th day of August, 1902,

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and a copy of the undertaking filed by plaintiff therein, and an order of injunction pendente lite having been granted and entered herein on the 28th day of August, 1902, and the defendants having duly answered by their answer verified the 3rd day of September, 1902, and having duly appeared herein, and having on the 14th day of September, 1902, ordered in writing to allow judgment to be taken against them in that "they, their clerks, agents, servants and employees, be enjoined and restrained perpetually from selling or dispensing either at the drug store of the said defendants, No. 622 Third Avenue, in the City of New York, or elsewhere, any essence of Pepsine or pharmaceutical preparation of any sort or kind whatsoever not manufactured by the plaintiff, in imitation of or in substitution for Fairchild's Essence of Pepsine, whenever Fairchild's Essence of Pepsine, is prescribed or asked for, and from representing by any word or action that any preparation sold by said defendants not manufactured by plaintiffs is Fairchild's Essence of Pepsine, with costs;" and the plaintiff, on the 15th day of September, 1902, the same being within ten (10) days after service of said offer of judgment, having accepted said offer, and an order granting the plaintiff an extra allowance having been made and entered herein on the 13th day of October, 1902, and the costs herein having been taxed by the clerk of this court on the 13th day of October, 1902, in the sum of forty-two and  $\frac{72}{100}$  dollars (\$42.72).

Now on motion of Gould & Wilkie, plaintiff's attorneys, it is adjudged that the defendants, their clerks, agents, servants and employees, be, and they hereby are, enjoined and restrained perpetually from selling or dispensing either at the drug store of the said defendants at No. 622 Third Avenue, in the City of New York, or elsewhere, any Essence of Pepsine or pharmaceutical preparation of any sort or kind whatsoever, not manufactured by the plaintiff, in imitation of, or in substitution for, Fairchild's Essence of Pepsine, whenever Fairchild's Essence of Pepsine is prescribed or asked for, and from representing by any word or action that any preparation sold by

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said defendants, not manufactured by the plaintiff, is Fair-child's Essence of Pepsine, together with forty-two and  $\frac{72}{100}$  dollars (\$42.72) costs, and an extra allowance of two hundred and fifty dollars (\$250).

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THE LATEST DISCOVERY ABOUT LONG LIFE.—One of the stones which the builders of physiological theories had rejected bids fair to become the head of the corner. Dr. Sajous, of Philadelphia, has disclosed to his medical brethren some surprising theories about the ductless glands in the human body. There are two small organs called the suprarenal glands (placed just above the kidneys) which have been thought to be useless, but Dr. Sajous avers, as a result of fourteen years of investigation, that they are of vital consequence. They secrete a substance which, carried to the lungs, takes up oxygen, and forms another substance which becomes mixed with the blood. It is this last substance, called adrenoxin, which does the work of supplying the tissues with oxygen which has so long been credited to the red corpuscles. The suprarenal glands are connected by nerves with a small organ in the brain (the use of which has not been known) which governs them and regulates their absorption of oxygen. Dr. Sajous says that it is on this organ of the brain, called the anterior pituitary, that all poisons work, and it fights them by stirring up the glands to take up more oxygen. More oxygen means more combustion, the burning up of poisons—of which the symptom is fever. A strong pituitary enables a man to lay in a good supply of oxygen and destroy disease germs, and now that the use of pituitaries is understood, they can be stimulated on occasions by drugs, so that folks with weak ones may make a better fight against germs. Dr. Sajous considers that what we have been used to call vitality is simply pituitary efficiency. All this is good for the doctors to know, if it is so, and it is interesting anyway. It is always a satisfaction, when a job is found for an organ that has been held to be useless. Some day it may be discovered that the vermiform appendix is a valuable anatomical asset, and that no man who has lost his may reasonably aspire to be President. That



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the body should contain an organ the sole use of which is the enrichment of the surgeons who remove it is not reasonable.—*Harper's Weekly*.

EXTRACT from an article entitled "The Heart in Typhoid and Malarial Fevers" by Dr. S. Aug. Freund, Berlin, Germany, in November number *Medical Brief*.

Have I a case of fever? Then I do not lose sight of the enteric disorder, and yet with my thoughts upon that, I still remember that there is a heart that is liable at any hour to complicate matters. That heart calls for the bromidia. It prevents the irritation, the poisoning. It cures the irritation, the poisoning. I can not dispense with it. How did I learn this? Partly (as I have outlined) by experiment, and partly by surgical experience. What do I mean by surgical experience? This. It is after the shock, after the operation may be, after the fever invades. What is that which we say? "All will go well unless heart failure should ensue." We all know that expression. It is heard every day. But since I began to employ bromidia for the pain, this has been eliminated. I never dread "heart failure" when I administer bromidia in my surgical cases. This is tantamount to saying that I never dread and never fear it, as in all surgical cases, without an exception I give Bromidia, having had such results there, there should be no need to ask where the principal lesson was learned in this matter of the fevers. I would not treat a surgical case and omit bromidia. I would not treat typhoid or typho-malarial fever, and omit bromidia.

THE RESPIRATORY LINK. The truth of the old adage that a "chain is only as strong as its weakest link" is forcibly illustrated in medicine. The constitution of a patient may in most of its relations be normal; yet the chain of health is impaired by one function which is the seat of more or less constantly recurring disturbances.

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congestions and inflammation of the respiratory organs. It may be that at all other times of the year the individual is, as far as indications go, in a good state of general health; it is, however more commonly the case that the skilled diagnostician is able to recognize an impairment of constitutional vigor, which is in reality the cause of the respiratory disturbances. Present-day scientific teaching emphasizes that it is unwise to treat these patients with expectorants, cough syrups and respiratory sedatives; these latter remedies are at the best but palliative and do not reach the cause of the disturbance. It is more rational to endeavor to strengthen this weak respiratory link by restoring its integrity, and the proper way to do this is by treatment directed to the real causative factor, which is an atonic condition of the system.

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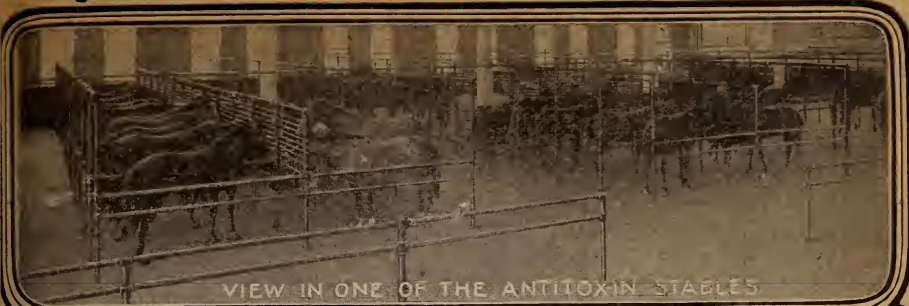
ens not only the weak respiratory link but also the entire chain of constitutional vigor.

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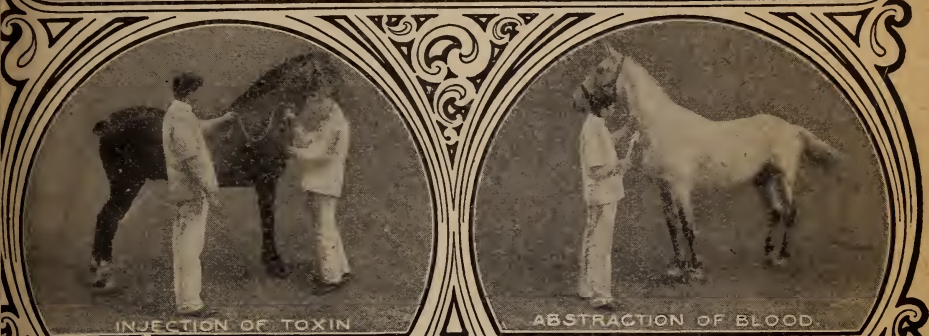
IN CASES in which there exists a condition of faulty assimilation of fats, cod-liver oil, by reason of the fact that it contains in intimate association the bile elements, is especially adapted to form the molecular basis of the chyle. In scrofula, and other disorders of the nutritive functions belonging to this group, cordial cod-liver oil compound (Hagee) is the best agent for promoting constructive metamorphosis.—*St. Louis Medical Era*.

THE AMERICAN UROLOGICAL ASSOCIATION meets first Wednesday of each month, except July, August and September. Annual meetings: The last day of the American Medical Association's meeting and the day following. This year's meeting: New Orleans, May 8th and 9th. Secretary: Ferd. C. Valentine, M. D., 31 West 61st St., New York.

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three months of this year show a pronounced increase in sales over that of the corresponding months of last year. In fact, it is the growth of the business which necessitated the removal into larger quarters, where the company has 75 per cent more space than in its old plant. The steadily growing esteem in which The Antikamnia Chemical Company's products are held by the medical profession throughout the world, is due to the well-known merits of the original Antikamnia Tablets and Powder, as well as to the undoubted remedial efficacy and pharmaceutical excellence of the new combination tablets which this company has, from time to time, added to its line of specialties.

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disorders. As an analgetic they are characterized by promptness of action, with the advantage of also being free from any depressing effect on the heart."

COCA AS A DEPURATIVE OF THE BLOOD.—The problems that confront the practitioner during the heated months, are usually the outgrowth of previous unsoundness of health which have settled into a condition more or less chronic, or those more acute ills engendered through overindulgence in such bounties as are now lavishly displayed. In either of these broad classes, when physical strength and mental power is at a low ebb, there is no one remedy better adapted than Coca. It is an adjuvant to all known forms of treatment. The knowledge of this drug has come to the busy scientific world through its efficacious use in allied conditions requiring the most urgent support to maintain life. The Andean traveler toiling up rugged steeps through bleak and uninhabitable regions, at an altitude where sheer existence is sustained with difficulty, is supported in his efforts through the use of Coca, the leaves of which he chews unceasingly. The seemingly marvelous action of these, apparently simple leaves, has only recently been learned through a study of the physiological properties of their constituents.

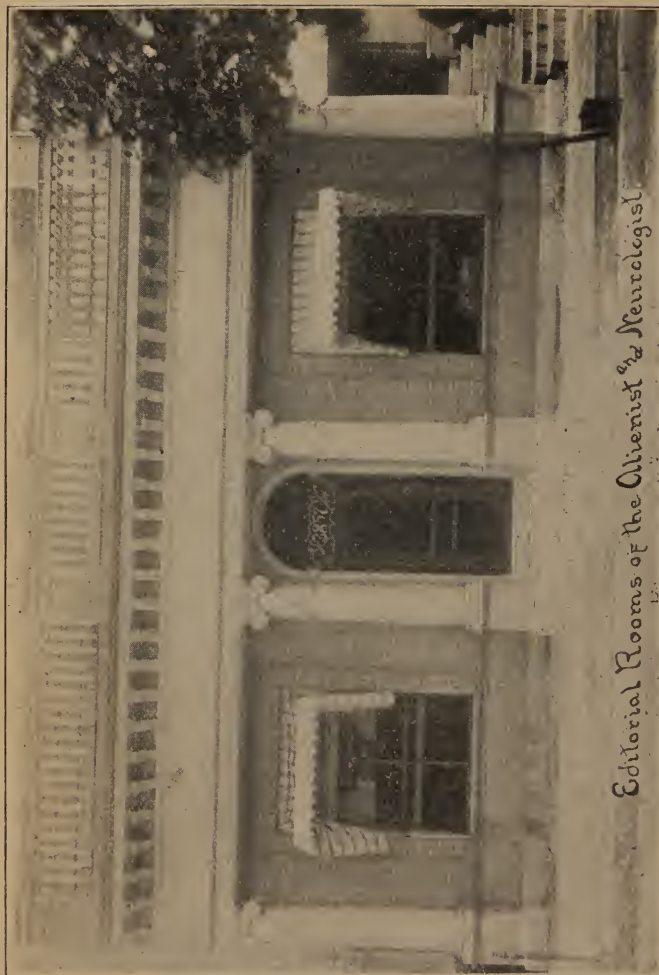
Coca primarily acts as a depurative of the blood, and as it is well known, when this nutrient stream is freed from the products of tissue waste—and not until then—the muscular and nervous system are in a condition where physiological repair can be effected. Whether the exhaustion be of a temporary nature, as that induced through excessive physical exertion, or be due to the prolonged presence of disease, the products of combustion in the human machine—the ashes and the clinkers—must first be thrown out in order that the entire system shall work more effectively. Coca, it is known, will bring about this excretive action in a phenomenal way, and when the volatile principles of this drug are carefully preserved through skilled manipulation—such as in the famous Vin Mariani—there is presented a depurifier and supporter *par excellence*.

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THE  
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UNRECOGNIZED TOXIC INSANITIES.

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By T. D. CROTHERS, M. D.

Superintendent Walnut Lodge Hospital, Hartford, Conn.

**R**ECENTLY, the term Toxic Insanity has come to represent a form of mental disease in which the exciting and predisposing causes are alcohol, opium and its alkaloids; also arsenic, lead and other minerals, together with toxins and bacterial products formed within the body. The symptoms include delirium, mania, melancholia delusions and hallucinations, associated with local inflammations of glandular organs and nerve fibers. During the year 1901, over 800,000 persons were arrested in this country for intoxication from alcohol and crime associated with it.

These were cases of toxic insanity with symptoms of both mental and physical disease. This army of toxic insanities is increasing and one of the prominent causes is the legal effort to cure by fine and imprisonment, which not only intensifies the disease, but makes it more incurable. The medical profession are indifferent to the influence of alcohol in the production of disease and its consequences, and by silence consent to the application of injurious legal penalties which are practically fatal to the victim.

My purpose in this study is to point out an unrecognized class of persons who suffer from these toxic insanities and who are not considered as mentally diseased, but whose disorders are regarded as moral lapses without medical significance. These persons are found in every community, and are not the chronic inebriates who frequent saloons, and appear intoxicated on the streets, or in police courts where they are accused of petty crimes resulting from insane conditions, but are the men and women who often occupy places of respectability in social, business and professional circles, and are active workers in many ways in the community. Their lives are irregular and not along healthy normal lines, and their pursuit of pleasure, business, or public ambition is marked by recklessness, either of morbid intensity or stupid indifference, while frequently they startle their friends by extreme and injudicious acts.

Spirits and drugs are used by them either in so-called moderation, continually or at periodic intervals, but the practice is concealed or only known by their intimate associates. Such persons make strange failures in business, professional and social circles, and seem beset with trouble, and are often opposed to the established order of society and its institutions. They are also continually out of harmony with their environment, and act strangely, exhibiting unaccountable suspicion of the acts of their associates, or credulous faith in impostors. Where crime is committed, it is marked by childish impulsiveness and stupidity, and their conduct and habits are often unusual and unexplainable. Such persons are called irregulars, cranks, extremists, paranoics and fast livers, and are apparently most of the time on the frontiers of insanity. They display degrees of criminality with mental and moral pauperism, although occasionally they show signs of genius, and some intellectual vigor and strength.

Often they are leaders in certain circles, and their weakness is considered phases of the low instincts and passions of the natural man. The form of insanity is of the paretic and auto-toxic type, and clearly traceable to the special toxic drug used. The clinical symptoms are uni-

form and characteristic, and point to psychopathic disease. Many of this class, although using spirits and drugs continuously, carry on business and perform the ordinary duties of life, but when studied show symptoms of marked aberrations of character and intellect.

They are usually unreliable and untruthful, and exhibit decided declensions from their early ambitions and purposes of life. Their view of duties, obligations and the relations to their families and society is changed. Pride in personal appearance and character is lowered. Mentally, they are irritable, and either suspicious or extremely credulous and often unable to discriminate between cause and effect in ordinary events. They draw conclusions from the most imperfect impressions and trust implicitly to the senses, which are always unreliable. Usually they are hyper-sensitive and emotional, sometimes in the opposite state of stupor and indifference. This mental deterioration exhibits itself in delusions, hallucinations, both concealed and open, and morbid impulses which are seldom corrected or recognized by themselves. These symptoms of disease follow definite lines, either of general skepticism of the purpose and motives of others, or of extraordinary precautions taken to avoid possible injuries that would result from fancied plots of others to injure them, or of expansive delusional states with dreams of wealth, honor and aggrandizement. They are either alarmed at the treachery and dishonesty of their family and friends, or are exulting in the consciousness of personal ability to control events and turn them to their own comfort and progress.

Physically, the senses are impaired. The powers of sight, hearing, taste, smell and touch are lowered, and the acuteness lessened. The co-ordination is disturbed, and palsy of the muscles with tremors are often marked. The facial muscles are anaesthetic and do not respond to the play of thought, or are hyperaesthetic and quiver with every emotional change. The tone of voice is altered, and thoughts are uttered either in a quick and jerky way or in a slow, measured manner. There is one peculiar symptom common to these toxic insanities, namely, the person has

the delusion of ability to control, and believes he has power to stop the use of spirits and drugs at any time. This delusion of free will often grows with in creasing intensity down to the last moment of life. The continuous failures of years, without a single success or instance of ability to change at will, makes no impression on the mind of the drinker or drug user. On all other topics, there may be a general recognition of cause and effect, and the value of the teachings of experience, but concerning drink and drugs the delusion of control never ceases. The failure to confirm the delusion of free will taxes the mind for explanations, which are only clear to the victim. This delusion of strength and ability to abstain at any time is encouraged by the friends of the victim or followed by condemnations for his failure. No matter what conditions or necessities may exist to demand sobriety and abstinence from the use of spirits, the patient insists that he can abstain at any moment and cares neither for the taste or the effects of spirits.

This belief is sincere and emphatic, and should a free interval occur in which no spirits are taken, this is considered evidence of the power of the will to stop at any time. The use of spirits during conditions where personal interest and that of the patient's family suffer, and where the indulgence is practically suicidal, is explained as a mere lapse which could have been prevented by an act of the will. This delusive state is unknown by the promoters of the ordinary revival movement, and temperance efforts in which the central object is to awaken the powers of the will supposed to be dormant. In many instances these efforts intensify and fix the delusion of free will, making recovery more and more uncertain. It is a curious fact that this peculiar symptom, which is seen in every day's experiences of the failures of inebriates to abstain should not be recognized as a disease. Another symptom more apparent in the latter stages, is the frequent suspicion of the infidelity of the wife and friends, with pronounced suspicions that their conduct and acts are intended for harm. Other symptoms are present which seem to depend on the



idiosyncrasy of the patient, which are significant of brain failure.

Often these are manifested in extreme credulities and strange delusions of the most absurd character without reason or justification. Deliriums are frequently followed by sense hallucinations. These change rapidly from one condition to another and are concealed by the patient, who at first doubts their reality, then finally comes to accept them as facts. When the patient drinks steadily, the mental condition is often manifested in extreme exaltation and delusional confidence in his capacity and strength.

Where the drinking is in short paroxysms, convulsive conditions follow in which the brain acts with great intensity for a time. A steady decline in both physical and mental vigor is apparent, also in conduct and thought. There are many persons in this condition, who are regarded by their intimate friends as odd and peculiar. Others in this state become bold and self-assertive and seek to attract public attention by peculiar conduct, then later become exhausted and collapse. Symptoms of mania, delirium and melancholy, are frequent; homicide and suicide may follow each other. Criminal impulses to take advantage of or injure some one bring these toxic insanities into prominence and are evidently due in many cases to the toxins arising from alcohol or drugs, breaking up the metabolism of the body, diminishing its nutrition, favoring the growth of other toxins and centers of bacterial poisoning, and are not only protoplasmic poisons, but irritants to the higher brain centers. Such insanities are seldom or never recognized, except when some extraordinary change or conduct attracts unusual attention. These insanities, when studied clinically, merge into groups in which some special symptoms become prominent; one of these groups show paretic symptoms, another mania, melancholy or dementia, with various forms of mental disturbance.

These symptoms are often masked, though sometimes clearly seen by intimate associates, and on some unusual occasion of strain or stress. A grouping of these obscure cases in classes, according to the occupation and surround-

ings, brings into prominence many clinical symptoms and distinct types that are practically unknown. The first group of toxic insanities which I shall describe will be those found among business men; persons known as moderate drinkers and only occasionally seen under the influence of spirits or drugs. In business circles they are regarded simply as persons who occasionally drink too much, either when in company or from some special cause. Among the first symptoms of mental change are business complications, and failures through bad judgment and want of caution with credulity in business matters and suspicions of their associates. They neglect their families early in their career and spend their evenings in clubs and theaters, showing great interest in unimportant matters foreign to their life and interests. Frequently, if able, they possess fast horses or yachts and join in out-door sports to the neglect of their business, always craving excitement and dreading monotony. They are alternatively severe and lax in their business habits, making strange friends and ignoring old companions and are boastful and arrogant in their treatment of associates; and when intoxicated are delirious and irritable. When sober, show great desire to conceal their attacks or explain the causes of the lapses.

After a time these men become alarmed at their condition and consult physicians, and when able, employ a family physician to be with them all the time. The physician may be ignorant of the real causes and diagnose some organic disease, and minimizes the effects of alcohol and the patient be injured rather than helped by the treatment. Then the personal habits change and also the appearance and manner of the man. His use of spirits increases until finally he becomes bankrupt; then is forced to begin life again on a lower position. In this condition he often becomes a criminal, frequently a defaulter and dies in prison. During all this time he is suffering from toxic insanity never recognized or properly treated. Numerous examples are seen in every town and city where persons of wealth and position manifest decided change of character and become patrons of gambling houses and race

courses. They neglect business, desert their families, become dissolute in habit and yet are rarely seen openly intoxicated. Some of these cases show hysterical fear of death and employ many physicians, concealing their use of alcohol beyond that of wines at the table. Two such cases under my observation were as follows: Both were active business men, of previous good judgment and excellent character. Both used spirits and drugs, secretly and openly, and both pursued a course of dissipation and reckless business conduct. One was passionate and delirious at times. One was examined by two experts, who found no symptoms of insanity, yet two weeks after, without any unusual symptoms, he attempted to kill his wife and, supposing he had done so, shot himself. The other case was treated by his family physician and many experts for malaria and nervous exhaustion, and was considered competent to take care of himself, although manifesting great inconsistencies in conduct and advocating wild theories.

Finally, he died suddenly and was found to be a bankrupt. It appeared that he had been supporting two distinct families, each in ignorance of the other, and living for years a life of great deception and fraud. Speculators, whose occupation usually induces much irregularity of living and great mental strain, are often types of this form of insanity. At first they begin to drink in company for sociability, then later, when depressed or unduly excited, use spirits, either to give boldness and courage or to steady the nervous system. Such persons are noticeable for their egotism, dishonesty, untruthfulness and reckless conduct also unstable judgment.

Frequently, they become gamblers, continually discounting the future and taking risks and wild chances. As plungers, their impulsive and insane conduct ends in disaster and ruin. Spirits are used with increasing frequency and all family and social relations are disturbed, and they live mainly in hotels, clubs and lodging houses. The mind is in a state of mania and delirium and in their work they are audacious, unreasonable and uncertain, always lacking steadiness and persistency. They are not

called drunkards, but are regarded as fast men living at high pressure. Paretic delusions of grandeur and power appear, giving a certain mental force that is delusive, which alternates in the extremes of success and failure, frequently ending in death from hemorrhage or acute inflammations. Toxic insanities are often seen among politicians. Their career is usually shorter than that of merchants or speculators, but is more strongly marked with symptoms of insanity. The mania for office and political power usually appears in poor lawyers and unsuccessful business men. Usually they are beer or spirit drinkers at the table, are dissatisfied with their present condition, and therefore seek office and power. In their life marked decadence is apparent.

They associate with low bar room voters, spending their time in saloons catering to spirit drinkers, brewers and ward heelers. Like others of this class, they neglect their families and join clubs. In election campaigns they are intensely excited and are constantly engaged in intrigues and plots. The judgment becomes feeble and is always controlled by others. The moral sense of right and wrong is weakened and they only do right under compulsion. They show low cunning and delusional persistency in following lines of conduct planned by others. When given office, they are purchaseable and open to any malign influence. Their career as office-holders is short, except under peculiar circumstances where they are supported by their superiors for some particular purpose. Such men drink constantly, yet are seldom intoxicated, but always show parietic signs which are not generally recognized except as weak, vicious impulses.

These insanities are common. Toxic insanities among professional men have also, unfortunately, many examples. The resignation of a clergyman and his disappearance in private life, after a short career of irregularity in conduct and pulpit administration, is a symptom of such cases. Strange, unreasoning conduct and defense of wild theories and credulity and skepticism are symptoms. Among lawyers, some unusual act or strange defalcation or a foolish ef-



fort to take advantage of opportunities to secure wealth by fraud, are characteristic signs.

Among doctors, who are so-called moderate users of spirits, a common symptom is a rupture of family relations with social scandal, or foolish contentions with brother practitioners, or defense of some extraordinary theories or unusual conduct. These are frequent symptoms and often indications of insanities that are seldom recognized. Many instances are on record where professional men, after a career of excentricity, suddenly develop mania and delirium, which end fatally. Later, it is found that spirits and drugs have been taken secretly for years.

The insane conduct was specifically due to the spirits and drugs taken. The following are some examples: An eminent physician died recently in a private sanitarium and the cause of death was said to have been cerebral hemorrhage. For ten years this man had been insane, although practicing his profession up to within a few months before death. Twelve years ago he began to use spirits to excess and a year later obtained a divorce from his wife, broke up his family home and has since lived in a hotel, leading an erratic life. He had delusions first of his wife's infidelity, then of persecution by his family, and was continually distrusting his fellow practitioners. Sometimes slandering them with great acerbity, then would show inordinate credulity, going from one extreme to the other and at the slightest provocation, engaging in legal contests in which he was always beaten. He has been a speculator, a gambler, a libertine and a low politician at times and has been detected in trying to take advantage of his patients and forced to make restitution. During these years he drank continuously and was intoxicated at intervals. He spent a large fortune and has twice been convicted of criminal assault, when under the influence of spirits. No effort was made to restrain him, his friends regarding his condition and conduct vicious, and the community tolerated his presence and permitted him to imperil the interest of his friends and the society in which he moved.

The death certificate was accurate, but the toxic insanity

was unrecognized. A doctor who drinks steadily, and shows great eccentricity of conduct and profound deterioration of general morals is always a dangerous man, not only in his personal influence, but in his inconsistent delusional mentality. Examples of lawyers, teachers and others of this class will occur to the minds of everyone. One such man, who recently died, was a violent defender of the use of alcohol as a stimulant and brain and nerve tonic. Another denounced all religion as destructive to civilization, a third was a rank socialist who would like to have society all on a level. Lawyers who have suffered from this disease have nearly always lost influence, and their career has terminated early in physical and mental bankruptcy. Occasionally, a clergyman gives unmistakable evidence of toxic insanity by his strange and unreasonable theories, or his strange principles.

The contrasts in both the lawyers and clergymen of this class with their compeers are not always clear, and yet their position and conduct indicates a change which can not be mistaken. In business and social circles the means of judging of similar conditions are more difficult, hence cases are overlooked.

Toxic insanities among literary men have many striking examples, particularly among journalists. Alcohol taken continuously, even in moderation, very soon impairs the capacity to do anything but inferior journalistic work. Opium and cocaine takers frequently write books, pamphlets and sensational novels. Cocaine users particularly manifest word manias and delusions of great mental capacity, both in visionary reasoning and turgid imagination. In the opium takers the brain efforts are so erratic and peculiar as to point to the real conditions, particularly in the uncertainty and vagueness which an expert is able to trace. In all cases, the higher moral faculties of consciousness, truthfulness and sense of right and wrong disappear early. The writings of drug users, who magnify the faults and weakness of society and proclaim the hollowness of family life, indicate drug psychoses. The vague character of the writing and the grotesque and startling sensationalism are

also unmistakable signs. In the lower walks of literary life there are many persons of this class who live most dramatic and sensational lives and pose as the victims of wrongs done by others. Literature is full of psychological symptoms of the toxic insanity of authors; both books, papers and controversial pamphlets in political and religious circles attest this fact.

In society circles the Toxic Insane frequently appear, particularly among persons who have inherited wealth, using spirits at their tables and having wine suppers at night. Such persons are noted for strange, erratic acts and delusions of superiority. They follow fads and whims of fashion up to the verge of absurdity. Often they display conduct almost criminal in its neglect of common sense and the rights of others. They ignore all society but their own, grow more and more selfish, hold doubtful family relations and lose respect for right, morals and good citizenship. These victims of toxic insanities are often drug maniacs and support opium dens, and are users of highly flavored wines and spirits. Their lives are marked by great irregularity and an apparent pursuit of pleasure. They patronize physicians who humor their whims and leave them worse than before. In many respects they are a greater menace to society than persons of similar habits lower down in the social scale.

The so-called fast set, in the circles of wealth and active business life, contain many examples of toxic insanity whose symptoms point unmistakably to degenerate psychoses. The immoral conduct, the unreasonable delusions, the extravagant expectations and changeable erratic manners and habits can only come from a brain made altogether unstable by the anaesthesia of alcohol. Such persons go from one extreme to another, appearing at dinners, balls, theaters, watering places, patrons of this or that extravagance, pursuing fads, travelling from place to place, developing egotism and contemptuous superiority for persons not in their class, and at the same time drinking steadily, often to great stupor, then making ineffectual efforts to recover, only to relapse. These are all signs of toxic insanity. Some

people of this class become maniacal and have paretic symptoms and live on a plane of intense excitement and exaltation. Others become melancholy and have religious delusions, promote and foster all kinds of strange and extraordinary philanthropic measures. They are all interested in affairs far away and never in those near at home; others have delusions of wealth and go into the stock market with a fascination that is thoroughly insane.

A few manifest miserly impulses or deliriums for political promotion, or strive to become famous as travellers and leaders in new enterprises, starting with great expectations, but changing suddenly and unexpectedly to some other purpose of thought or action. Often these insanities have a limited influence and terminate in violent death, only a few of them ever going to insane asylums. Some of the facts to be emphasized from this clinical study are:

1st. Toxic Insanities, particularly from spirits and drugs, are increasing. This is apparent, not only from the records of courts and hospitals and among the lower and more degenerate classes, but from the unusual conduct and acts of persons high in the domain of active life, together with strange, unexpected crime and social changes and revolutions, which startle society and disturb business. When these are studied, they are found to be largely associated with spirit and drug taking.

2nd. A closer study reveals a distinct origin, progress and development of a psychosis and progressive disease and degeneration of the brain and nerve centers, called Toxic Insanity.

3rd. The paralyzing anaesthetic action of alcohol, first on the sensory, then on the higher co-ordinating centers, is one of the most distinct of all the psychoses, because traceable from cause to effect.

4th. It is beyond question that a large percentage of all the insanities occurring in the higher levels of business, literary, professional and social circles are both directly and indirectly the result of the use of alcohol and drugs.

5th. These causes are largely unrecognized except in the



later stages, and then do not attract attention beyond that of contributory conditions and accidental causes.

6th. Finally, changes of conduct, character, habits and manners in persons who use spirits and drugs can only be explained as true psychoses and insanities, which demand medical study and treatment.

7th. It is said that fully one-fourth of the medical practice in this country among the better classes of society is directed to correct the injuries which follow from the toxins of alcohol and drugs. There are medical men in every large city, and hotel physicians who are constantly employed in the care of persons in toxic states from alcohol or drugs. The actual psychopathic condition is unrecognized and unknown. While in the lower classes it is certain that the largest proportion of crime and poverty is due to the same causes.

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# OUTLINES OF PSYCHIATRY IN CLINICAL LECTURES.\*

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BY DR. C. WERNICKE,

Professor in Breslau.†

## LECTURE TWENTY-FIVE.

Acute Hallucinosiis, Presentation of a Typical Case Terminating in Recovery.  
Etiology. Danger of Recurrence.

THE patient I present to-day is the merchant K., 32 years old, and, as you see, a well-nourished, apparently completely self-possessed man, who can tell us how he happened to come to the Clinic. He came to the institution five days ago in the evening, to find protection from fancied persecutors. He lives on the opposite side of the city and is a dealer in colonial goods and also has a saloon in connection with his business. A jeweler lives opposite, who is to blame for the whole trouble. He assumes this because he had recently expressed himself offensively about the patient over the discharge of a clerk, and because he has been the spokesman of the whole crowd. As the patient sat quietly in his room towards evening making up his accounts, he suddenly heard voices: "Now he will reckon up"; he then heard the whole amount, what book he would take and what he would write. He hence concluded all his movements were seen and his thoughts known, probably by means of a sort of mirror arrangement, for he believed he noticed a ray of light and

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\*Continued from *Alienist and Neurologist*, Vol. xxiv. No. 2.

†English by Dr. W. Alfred McCorn, Supt. Elizabeth General Hospital, Elizabeth, N. J.

to see his persecutors, although this was wholly impossible from the position of the window, and he probably heard their voices through a telephone put in unknown to him. As he also heard very common insults, he left the room to find a policeman, who would put a stop to the annoyance. As he did not find one in the vicinity, he went to a neighboring saloon and ate his supper. He then left the saloon and met a policeman, to whom he made his complaint. The policeman went with him and told him he saw nor heard no one, advised him to go to sleep. In fact it was perfectly quiet as long as the policeman was there. He had then gone to bed, but soon noticed that the trouble began again. He now heard his thoughts repeated, thoughts were put into his head, and it now seemed as if the Commission was able "to draw out" thoughts of comical content so as to be able to move for his punishment on their account. It seemed to him as if a telephone was connected with the garden and in this way his thoughts were intercepted by the people. While he lay in bed he had the sensation as if light was flashed in his face. Hence from the common insults he heard and the threatening expression, as *e. g.*: "The rascal has eaten his supper and will be executed at once," or: "There are people on the outside who will stone him to death," he became greatly agitated and got up to seek protection. On the street he was greeted with jeers, all the people seemed to know him and cried: "Now he comes, there he is, the scamp, the rascal, into the Odor with him!" In his anxiety he ran aimlessly through the streets, constantly annoyed and followed by the crowd behind him, finally breathless and perspiring reached a saloon in the vicinity of our Clinic. He there drank some whisky and asked for a rope to hang himself. Consequently he was recognized to be ill and brought into the Clinic. The first night here he slept very little. He knew perfectly where he was and felt somewhat more secure, but still heard the crowd outside yelling, who would drag him to the Odor and throw him in. It once seemed to him as if three elephants came into the room, but he might have been deceived. A powder (phenacetin 2,0)

induced sleep. Here in the Clinic he well knows that nothing will happen him; but the patient believes he will be run out when they come for him. On inquiry the patient states that he would rather make an end to his life to escape the anxiety over his impending fate. Patient gives a clear account of his business affairs, but wishes to make "his last arrangements," and declares "to follow it irresistibly." The anxiety affects the whole body and is occasionally accompanied by palpitation and pressure in the epigastrium. He explains the anxiety by the voices he constantly hears. He literally cites the following expressions: "For God's sake. Is not executed. That is the right one, the beggar, now he laughs, the doctor writes. It is nonsense that all is written down [refers to writing the clinical history], he is a malingerer. He may be crazy, but he is also a malingerer. What is thought of such a malingerer. K. is a malingerer. K., do you not hear you are a malingerer? What does it mean that all is written down? The doctor is a good man. The doctor is a block-head. The doctor is an ass." The physician's inquiry: "Does anyone outside slander you?" the patient has heard repeated. Likewise questions asked him and his own thoughts are often repeated by the people. Positive opinions of the physicians, the Emperor, etc., which are entirely foreign to him, were "put into his head" at first, later he has heard the corresponding voices. The insults and common remarks he has heard in this way, were at one time individual voices he recognized, again in unison by a number, as to soldiers. "Now he shall go into the city sewer." But he thought: "No, not yet." He heard of a dispatch of the Emperor: "Within eight days his head will fall," saw the telegraph messenger hand it to the state's attorney. Several times the prison bell has rung as it does for an execution.

Patient shows he is perfectly orientated, knows the physicians, each of the attendants, his fellow patients and has never projected the voices to persons he knows. It is always the people outside of whom he speaks. On inquiry he states that he has often seen the people outside,



among them the jeweler, who is always there. He wonders if the people sometimes remain there during his meals and not go away. He has heard voices, there is poison in the food, he must not eat, but still has eaten, in the hope of thus escaping a worse death. Patient denies having sensations of taste or smell of like content. One evening as he received paraldehyde as a hypnotic, he heard the voice: "It will please him that he gets whisky." Of abnormal sensations the patient states it often seems to him as if he was electrified; he also believes there must be a powerful electrical machine somewhere. A few statements of the patient as to his hallucinations of hearing are interesting. He complains of a constant roaring and buzzing in his ears. Rhythmical ringing in the ear on the pillow is associated as soon as he lies down. Patient has repeatedly stated the rhythm of the ringing is synchronous with the pulse. He then hears the voices in the other ear. With respect to his conduct on the ward, the patient is often found kneeling by the side of his bed; he is making his last prayer, for he will soon be taken out; he often gets out of bed to listen at the door. He has never been disoriented and it is always possible to quiet him for a moment by encouragement. Sleep is only attained by hypnotics or, as in a number of similar cases, a dose of 2 grams of phenacetin.

If we epitomize the essential traits of the disease type, we have a physically well-nourished, florid man, who is perfectly able to give intelligent information. But from his manner of speech a suppressed effect is recognizable, he is "composed," as he says, but troubled with constant anxiety, his manner of speech is sometimes hurried and the voice slightly tremulous. The extended hands soon begin to tremble. The cardinal symptom we find to be the phonemes, whose content corresponding to the feeling of anxiety is partly of a threatening nature, in part expresses a blunting of his personality (ideas of allopsychical and autopsychical anxiety). He hears the most slanderous assertions as to himself, indignities, threats describing how he will be tormented to death, and now expects an ignominious end. He states very definitely that his disease de-

veloped very acutely and reached a marked intensity within a few hours, further that he had heard the voices and had become anxious in consequence of the voices. When he had heard the people on the street utter together the worst suspicions, as if by agreement, the first agitating idea appeared, that it would be all right with the business, if they made him out to be so bad. But the intense anxiety came later when he was chased on the street. The explanations the patient makes are striking. He is convinced that a telephone has been put in his residence, speaks of "mind readers" and describes an apparatus, which he claims to have seen, a lamp with a mirror over it, from which pass electrical wires. He assumes a definite starting point of the persecutions, in that he designates the jeweler as the peoples' instigator and ascribes to him the motive to get even with him for discharging the clerk. In all these circumstances we perceive the commencement of a systematization, a uniform explanation of the manifestations agitating the patient, and this a few days after the acute onset of the psychosis. We will soon see, that this rapid systematization is characteristic of this disease. Without doubt it depends on the relative intactness of the formal ability to think, as we have seen, that during the demonstration the patient was free from voices and never diverted by them. The hallucinations of sight are of secondary importance, they occur preferably in combination with hallucinations of hearing and have in part a directly delirious tendency. Other sense perversions, except those of tactile sensation (electricity) have not occurred. The patient is firmly convinced of the reality of his perceptions, yet orientation is unaffected, and the present situation at the clinic the patient judges correctly. The contradiction which thus arises, does not escape him, it is even clear to him in form of a phoneme, which the patient communicates. He has heard: "If he was in prison, he could be taken by force; because he is in the hospital one must wait until he comes out."

The patient represents one of the best defined forms of the acute psychoses, which deserve the name of *acute hallucinosis*, if the practical indications of clinical analysis

will be followed. The etiology is known for a part of these cases, it is alcoholic excess as for delirium tremens\*, and still another type of disease. We learn from the patient that he has drank heavily for several years owing to worry over his business, recently cognac chiefly. For a long time he has had headache, vertigo and restless sleep, complaints he now expresses. But the onset of the psychosis was very acute, as the patient has plainly described. From experience with similar cases we may make a favorable prognosis and expect complete recovery in a few weeks.† Still we certainly have to expect definite relapses of ever graver character, unless alcohol is permanently abandoned, and the final termination is in an incurable chronic psychosis. The otherwise wholly analogous cases of non-alcoholic, non-toxic origin do not seem to have this danger of recurrence.

For completion of the disease type I refer to an instance of such recurrent acute hallucinosis I presented several semesters ago. This patient, the draughtsman and unlicensed attorney W., 45 years old, is now in the insane asylum at T. incurably insane, and at the time of his presentation was in the third recurrence of his disease (in the course of 1½ year), besides the last recurrence, from which he was discharged recovered, while the fourth following within fifteen months has resulted in incurable mental disease. This patient, W., formerly elementary teacher, was sentenced to three years imprisonment for indecent assault. Nevertheless since then he has earned his living and supported a family honestly and decently. But his digestive organs gradually failed and he began to drink whisky, which two years prior to his clinical presentation led to the outbreak of his mental disease. This was of the same disease type of acute hallucinosis as in the patient K. He was discharged recovered from the insane hospital of the province after six months. Nine months later the first recurrence occurred just as acutely, which was treated here and did not take three months for recovery. The second

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\* See following lecture.

† Patient was discharged recovered after ten weeks' stay in the hospital and has remained well since (four years).

recurrence appeared about three months after, from which he could be discharged recovered after two months' treatment; the third serious relapse, as stated, fifteen months later. During the intervals he always had complete insight as to his former condition. I refer to the clinical picture we had then; it was essentially more severe than that of the patient K. This patient could also give clear information as to events immediately preceding his admission. But his affect was occasionally increased to the most intense anxiety and confusion, so that he fell on his knees and begged for his life. The tremor of the voice and lips in speaking, as well as that of the hands, and the bloated, pale and sickly appearance of the extremely corpulent patient indicated a greater alcoholic degeneration. In hasty, precipitate way he reported he had moved into a new residence shortly before. As he looked out of the window for the first time, he noticed that people were running back and forth so peculiarly to look at him and had made remarks about him; he might thus conclude his whole past had been spread abroad. Soon he was yelled at on the street, satirical songs sang, whistled at. "Lawyer, pettifogger, scamp of a draughtsman, blackguard, rascal, pimp, the scamp has raped his daughter. The State's Attorney will throw him out. He shall be pumped full at the well and cut open, then into the puddle with him, put to death." He also heard the worst things about his wife and daughter. "Cattle, old whore, procuress, carried off to prison. She should be sewed up in a cowhide and sent begging." Among the voices he recognized those of two policemen especially, who lived in his house, but children's voices, those of animals and drumming were intermingled. The dogs bark: "The rascal comes, the rascal comes, the rascal is there." The patient further complained that something was squirted into his face through the window, and oil (sulphur of ice acid) put in the whisky, so that his head splits open, for he feels how his head is swollen. This patient was subject to the same sense perversions at the Clinic, he heard the voices, partly from the street, partly from the radiators, from the latter he thought morphine



was squirted. On the ward he generally remains quietly in bed "attentive to everything," in the expectation of being taken out and executed any moment. The anxiety is sometimes increased to slight motor restlessness and fear of approach, particularly at night, and profuse perspiration occurs. This patient from now on developed a system of persecution. As unlicensed attorney he had repeatedly plead for his clients against the state's attorney; all the persecutions have started from this, the police also took part in it. They would ruin him in this way and bring him to his senses. In spite of the violence of the attack it was of short duration, for after about eight days he became quiet and the next week perfect disease insight appeared. It is to be mentioned as a characteristic trait, that the patient had come to the institution voluntarily, because he felt sick and feared to have delirium tremens, and that in the preceding relapse and before he had attempted suicide. In spite of sense perversions held to be true, this patient has never been disoriented as to his abode and surroundings.

A pronounced paranoiac stage of varying duration, usually of a few weeks at least, appears to always occur in the cases terminating in recovery, due to the fading of the sense perversions with continuation of the system previously formed. But usually the affect of anxiety disappears gradually, while the sense perversions still continue, yet the general condition returns to the normal, and a chronic state of the delusion of physical persecution or a persecution system is simulated, which, after weeks of existence may astonish the inexperienced by its sudden disappearance. A patient of this kind may, after his acute stage has passed in which he attempted suicide, be cared for at home in charge of an attendant, but believes the house is surrounded by police and constantly watched by telephonic arrangements and optical appliances.

The disease type, you have now become acquainted with, is met with relatively so often that I do not doubt that it is accepted by most alienists. Still it has not been made sufficiently prominent as an independent disease type, and separated from related conditions. I find the best

description in Marcel's thesis\*, where the acute mode of origin, the frequency of suicidal attempts, the slanderous and fantastically threatening content of the phonemes and the prevalence of hallucinations of hearing in the clinical picture have been aptly described.

Chronic alcoholic intoxication is to be established as the etiological factor in the large majority of cases of acute hallucinosis. But there are more rare cases in which alcoholic excess can be definitely excluded; a case of this sort presented marked family disposition to mental disease. Where alcoholism is proven to be the cause, the etiological relation is entirely different from that in delirium tremens; for acute hallucinosis generally occurs preferably after greater alcoholic excesses, while delirium after periods of abstinence.

The disease type is to be exactly differentiated *diagnostically* in three ways, from delirium tremens as the most frequent form of the alcoholic psychoses, from the simple acute psychoses with apprehension and from the cases of chronic development from the start, which I have formerly† termed chronic hallucinosis. The disease is readily differentiated from delirium tremens, because the fundamental symptom of the latter, the allopsychical disorientation strictly, is entirely wanting. Still transitional cases occasionally occur, either that combined hallucinations obscure the picture for a time and also produce for a term the motor restlessness coincident to delirium tremens, or that in an otherwise well characterized delirium tremens the disease type approximates more that of acute hallucinosis by the prevalence of threatening phonemes. In the differential diagnosis from the acute psychosis with apprehension, which may be the cause of mistakes, it is to be remarked, that the chief uniformity of both disease types must be admitted in so far as the insulting and fantastically threatening character of the phonemes and consequently their origin from ideas of autopsychical and allopsychical anxiety is common to both. But in the psychosis with apprehen-

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\* *De la folie causee par l'abus des boissons alcooliques, Paris, 1847.*

† See *Alienist and Neurologist*, Vol. XXI, p. 305 and 306.

sion the ideas of autopsychical anxiety of micromania usually predominate, and these do not consist so prevalently in phonemes as here. Further the whole disease type of acute hallucinosis is more continuous, not influenced in so high a degree by the affect variations as that of the acute psychosis with apprehension.\* But besides the statement of the patient with acute hallucinosis that the voices have occurred first and the anxiety subsequently, too often recurs not to demand practical consideration, especially as in the psychosis with apprehension the opposite statement is very commonly made. Specifically the acute hallucinosis really seems to be the occurrence of numerous phonemes with the content of the delusion of autopsychical and allopsychical relativity. Finally the rapid falsification of content, and that of allopsychical consciousness, the origin of the physical and soon usually altruistic\* delusion of persecution, is extremely characteristic of the acute hallucinosis, while it is absent in the acute psychosis with apprehension, excepting certain rare cases of chronic progressive course.† The separation of the disease type from chronic hallucinosis is always easy,‡ as soon as the acute mode of origin is anamnestically established with certainty. Merely the fact that the etiology of alcoholism is quite often true of chronic hallucinosis may here lead to confusion, while the systematic stamp of the delusion of persecution, which, according to the opinion now prevailing, will only occur in chronic and incurable cases, is a sign of the acute hallucinosis. Besides the cases of chronic hallucinosis on alcoholic basis seem to retain their special stamp within the realm of chronic psychoses by the admixture of marked signs of degeneration.

The *course of the disease* is sufficiently characterized by the very acute, rapid onset, and further the descending condition of the disease curve.

The *treatment* of acute hallucinosis is only possible in an

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\* I might so designate the delusion of persecution directed against certain persons or groups of persons.

† See foot note to page 66, of the *Alienist and Neurologist*, Vol. xxiv.

‡ Compare case 10 in the 1st and case 3 in the 2nd Heft of the "*Krankenvorstellungen*."

insane hospital at the time of the acute symptoms. The danger of suicide has been repeatedly mentioned. In the paranoiac stage treatment at home may be possible sometimes, with very careful supervision. Strict bed treatment is then to be carried out, sleep and sufficient nourishment looked after and occasional paroxysms of anxiety met by opium. In alcoholics absolute abstinence is essential, limitation of the amount of alcohol is usually insufficient to prevent occasional excesses and consequently relapses.

The *prognosis* seems to be absolutely favorable in the first attacks of the disease, only the exception soon to be spoken of is to be taken into account. The more relapses have occurred, the more questionable becomes the favorable termination of the disease type in itself serious, and finally a relapse terminates in incurable chronic hallucinosis. Continued alcoholic excess always seems to be responsible for the relapses.

As we have become acquainted with the most of the simple psychoses, acute hallucinosis is quite often only the more or less pure initial stage of a rapidly progressive sensory psychosis, which deserves the name of *acute progressive hallucinosis*. These cases usually present a serious aspect from the first, the patients are less amenable, responsive to treatment, present fear of approach, without the delirious admixtures being able to explain it. The phonemes do not dominate in so high a degree, tactile hallucinations, those of smell and especially taste are soon conspicuous factors, and accordingly the practically so dangerous idea of poisoning occurs especially. Still the predominating traits of acute hallucinosis, the retained allopsychical orientation and absence of any formal thought disorder may continue for weeks, until noticeable exaggeration of the affect of defense and the accession of new symptoms indicate the progression of the disease type. In these cases motor symptoms always seem to be added quickly and a state of profound confusion with disorientation in all three domains of consciousness to result.

(To be continued.)

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# CONSIDERATION OF THE MEDICO-LEGAL ASPECTS OF APHASIA.

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[*A LECTURE TO MEDICAL STUDENTS.*]

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**C**ONTRACTS, testamentary acts, including last wills, mortgages, powers of attorney, promissory notes, bank checks, official acts and signatures, testimony of record or in court, purchases of realty or personal property, the ballot as corporation director or at the polls, etc., in short all or any of the acts ordinarily performed or required of the citizen, may be required and performed by an aphasic except public speaking, facile writing, or verbal singing and the validity of his act may be brought in question before the civil courts. And before civil and criminal courts his acts may sometimes have to be judged, as when his aphasic ejaculations or writings appear offensive, vulgar, slanderous or profane, through mail or telephone or *ad hominem* or *ad femininum*. The aphasiac may also fail to see or hear words or other symbols. He may have visual *asymbolia* and yet see and hear generally. He may have visual and auditory perception save in these aphasic aspects. The legal significance of this is obvious.

Let us recur for *apropos* illustration to the case already referred to by Trousseau of the Lady, Madam B., who saluted her guest as a "pig, brute and stupid fool", or the other

case from Trousseau who antithetically prayed "our father who art in hell". Such a salutation, if meant, would be an unwarranted insult and such a prayer if audibly made in a sanctuary would unlawfully shock the proprieties of the service, and both might lead to trouble in families or congregation, or before the law. Were such a verbal conduct not the result of aphasia, such speech could only proceed from design to insult and affront or from the insane impulsion of mental disease. Aphasia without design or insanity may violate propriety of speech.

I have already given you the interesting record and psychical analysis of W. T. Bevan. It has shown you not only how long ago the subject interested me, but the difference between sanity and insanity in a damaged brain showing chiefly speech perversion without insanity. The subject of aphasia has interested me ever since and I have read more and seen more on the subject than I can, in a few lectures communicate to you. Other matters beside aphasia, interesting as it is, as a revelation of the divided functions of the brain and confirmatory as it is of scientific cerebral localization, must engage your attention during the course.\*

Before the time of the epoch-making discoveries of Dax and Broca, which was but half a century ago, aphasiacs were not differentiated sharply as you will have to distinguish them now, in the light of a more advanced pathology, from mental incompetency. A careful search of Ray, Casper, Hoffbauer and other older writers on medical jurisprudence would probably reveal some such cases of the confounding of aphasia with general or far more extensive brain disease, with which it does actually often coexist, especially in the beginning of an attack, like that for instance of a cortical apoplexy from an embolism, extravasation or thrombosis of the left middle cerebral artery. A middle meningeal hemorrhage might also spread over the left side of the brain between the membranes far enough to press upon and damage the speech center or avenues leading to and from it so as to destroy its functioning capacity, causing an associated or secondary hemorr-

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\* See Case of Bevan, Chapter XXXIII, Hughes' "Neurological Practice of Medicine."

hagic aphasia. And it will sometimes tax your diagnostic skill to determine the existence of a pure and exclusive aphasia remaining after a right hemiplegia has followed the onset of the disease of the left hemisphere, as we saw in the case of Mr. Bevan, which I attempted to psychologically analyze for your instruction. The presumption of something more than aphasia remaining after an apparently recovered hemiplegia, may exist and be reasonably held as maintained by my friend Dr. Stevens in the case of Wm. T. Bevan, though I did not think any more grave mental impairment beyond the aphasia existed in that particular case, reasoning from Bevan's recovery from the paralysis of the lower limb, his learning to write and knowing the necessity for it and with a full realization of the importance of educating himself to write with his left hand and his subsequent conduct and acts were all in harmony with the rational necessities of his changed and crippled brain. The case would have been still stronger had Bevan recovered the use of his right hand and arm even though he might have forgotten forever after how to write with his right hand. Such a case might, with the oral aphasia have had agraphia, which is a speech center inability to direct or conceive the execution of language or written characters. Then we should have had less light on Bevan's mental state.

Criminal responsibility and testamentary capacity of deaf mutes are not questioned in law unless there is proof of other than their speech and hearing defect of brain and consequent departure from the normal condition of mind tending to show them legally irresponsible. The aphasiac stands on the same footing and you should seek, by critical examination of his acts and speech and writing or spelling efforts, to see if they are in harmony with his natural character, as you would in examining an insane person. Take into account his changed circumstances, his crippled condition of brain and ascertain if you can if his acts are in normal harmony with those of a sane, but suddenly lamed brain. We judge an aphasically maimed, as we would estimate an otherwise crippled man with reference to other movements of the body, than those of the mental organism.

A man with a sprained ankle would walk in accordance with his changed power of locomotion or not at all. He would not try to run or dance. He would consult a surgeon and follow his advice. With paralyzed tongue or vocal cords a man could not talk or sing and with Bell's palsy he could not whistle. He might both whistle and sing with aphasia. But a sane man with Bell's palsy and a sane man with any form of aphasia would adapt his attempted conduct and speech to his affliction, conforming in a rational way to his changed state of brain power. A stuttering passenger, according to Joe Miller's jest book, saw a man fall overboard but could not make the captain understand, till after the captain cursed him and told him to sing. He then sang out readily enough, "Overboard is Barnabus, half a mile astern of us," though after the ship had gotten too far on her course to rescue the unfortunate sailor. This man was a little slow in appreciating himself and in making himself understood, but he got there finally with what he wished to say, though he had to sing it. I had an aphasic patient who could carry the air of several familiar tunes, whose speaking vocabulary was restricted to a single word, "no," which he used for both assent and dissent, shaking his head and gesticulating with proper meaning, as Bevin did with his *nin-nin*. He had amnesia, that is, word forgetfulness, but no anamusia, that is, not musical sound forgetfulness. He remembered and could repeat some surnames, and his own, and could write them, but was incompletely agraphic. He also could not tell whether a paper or printed book leaves or newspaper was right side up or not. He had visual aphasia as a complication you see. But if he had had agraphia associated with his speech utterance aphasia, our task of differentiation of crippled sanity or mental deformity, real insane mental derangement, would have been more difficult.

The psychological analysis of the aphasic should reveal a sane self-appreciation of the fact that his brain is crippled and should show a rational conduct in conformity with the damaged condition of his brain powers, in order to establish the persistence of sanity, in your judgment of him.



His substitutive efforts at speech communication should be rational and show similar appreciation of his crippled mental powers of speech idea communication, the same as that which he would do if he had some other damaged brain condition of which he was duly sensible, as neuralgia, or a headache, or a tongue or throat paralysis. His conduct should be in harmony with these facts, *i. e.*, rationally in accordance therewith. He should try to meet the ordinary necessities of his changed form of existence in ways which would be in conformity to those circumstances which disease of his speech brain areas have made. He should betray the ordinary knowledge and use of the necessary expedients for substituting conscious speech defect. His acts at speech-making might be extraordinary, but they would be in natural harmony with the extraordinary and changed circumstances of his life.

He would substitute writing for speech, if he had amnesia without agraphia, and speaking for writing if he had agraphia without amnesia, or he might try to sing or otherwise communicate his thoughts if he could neither talk or write. For aphasics may lose the memory of word characters, without the loss of word sound memory, or he might, and probably would, if sane, substitute pantomime where verbal amnesia and agraphia existed.

To be considered sane the aphasic should have a reasonable, though not necessarily a perfect realization of his crippled brain condition. We should not expect too intelligent a knowledge of his entire speech center state, for we do not always understand that ourselves. He might be unaware of the break between his auditory and the sight and proper speech center of Broca and therefore not understand more than a blind or deaf man, and he might not know, by reason, of broken visual connections, that he does not see certain objects or hear certain sounds about him, without the fact being otherwise communicated to him, *i. e.*, that certain sights are before him and certain sounds are uttered in his ears.

He may be sight blind to certain characters or letters and sound deaf to certain word sounds, and yet be sane. We should not measure his sanity or insanity solely by the

fact that he has this defective visual or auditory aphasia. If we are intelligent and patient with him we may, after a time, get him to comprehend himself, and realize that it is possible for him, crippled in capacity, to discern certain special sights and sounds as of the formation or sounds of words or musical notes, without being generally blind or deaf or insane.

Some aphasics may have both word blindness and word deafness. A patient of Ross' when asked to write his name "William Abson" wrote Meagageal Abreaghersn, and being asked to copy a passage beginning with, "with deep feeling," wrote with great care and deliberation and in a good hand "weeth deap flneearer." As the patient wrote each letter he named one aloud, but the written and spoken letter never corresponded one with another. He read another passage "On through depth of my shrouded youth" meaning to read, "Oh those dreams of my youth." Such paralexia as this and some of Kussmaul's paraphasia as "Cater Oil" for "parasol" or "nome powder" for "cough medicine" or the calling of the thumb a public house or the first finger a half-penny, the second, the second half-penny, the third three-pence, a watch, a glass of beer, etc., also recorded by Ross, might be considered by the novice in psychiatry as evidences of insanity, but they are not, because the disease that causes these mistakes in naming is not due to false or delusive conceptions originating in the higher mind areas of the brain but in the motor speech area and are due to erroneous perception caused by damage between the sight and object expression center. The conduction tracts are here damaged.

All of this is possible in aphasia and compatible with sanity. You only have to establish, by proving its function normal otherwise, that the rest of the brain cortex, the remainder of the psychic area, is sound.

If the aphasic intelligently knows his wants and intelligently attempts to supply them and has a reasonable conception of his crippled brain state and does not act like a fool or lunatic, but somewhat as any man would in the conduct of his affairs, if badly damaged in his head or elsewhere, we cannot class him as insane, irresponsible or

incompetent. If, however, instead of conforming his attempt at speech, writing, pantomime or other conduct to his changed condition, he should go on attempting to live and act as if nothing had happened, and should show thereby that he did not recognize the grave change which had occurred in his language idea receiving, conceiving and communicating centers and their capacities and powers, he would be an insane man. Measure the aphasic's mental conduct by the fact of aphasia and see if his mental life conforms to his changed condition, as any sane man's would. A voluntary change of conformity to environment takes place in an aphasiac caused by brain disease in conformity to changed conditions in his brain, which he realizes as demanding change in his methods of communication with the outer world and he makes the changes in a rational manner. But it is not an involuntary change nor is it a change of character as we see in insanity. Ordinary sanity is shown in the normal conformity of speech and conduct of a normal brain to outward environment. A sane man, with a damaged brain, will conform his speech and conduct rationally to his changed condition of brain. A man with a brain damaged in speech areas fails to conform his mental conduct to his changed circumstances in such a rational way.

The sane aphasic displays his normal character, adapting itself differently to his changed environment. His environment has changed in the fact that he can neither comprehend nor communicate in his previous ordinary manner. He must therefore adopt new ways to do both. His manner has changed for good and adequate cause. The insane man's manner changes without adequate cause acting on his mind. The mental display of sane aphasia is a rationally adapted change to new conditions. The change of the insane man's manner is irrational and out of harmony to his ordinary environment. That of the sane man conforms normally to the changes within and without his brain.

Hoffbauer\* in 1827, cited by Ray, Bateman and Lang-

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\*Treatise on Legal Medicine, Paris, 1827.

don, has recorded the case of a Hanoverian woman who could only express her mind by signs, who made a will which was accepted as valid by the courts of Hanover, and Billod,<sup>†</sup> quoted also by Langdon, makes a record of a case like Bevan, who though in public office for five years as Mayor and Municipal Councillor, could not speak, but learned to write with his left hand and sign documents. But he did more. He wrote a legally valid will.

And another quoted by Langdon from the law reports of Great Britain, who had right hemiplegia and could only make his mark and employ signs, made a will dictated by signs and written out by an amanuensis, bequeathing thirty thousand pounds. The will was written on a card and the mark of Mr. J. T. L., the testator, was placed in the middle of the card through the word life and duly witnessed on the back of the card. The court held this form of will to be valid, but this particular will was legally invalid, according to Dr. Bateman's comments, because the will was not subscribed, but signed, in the middle of the document, which was not in the right place "to satisfy the provisions of the statute of the wills act." This man had visual aphasia or word blindness or ordinary verbal aphasia and agraphia. Connection of the visual tract and angular gyrus with the speech center was broken. The auditory connections were intact, for he understood what was asked and suggested, and made properly appreciative gesture responses. It was a psychically valid but legally invalid will.

In helping asphasics to make a legally valid will, and you may be called upon to do this, this case suggests the importance of properly locating the aphasiac's signature in order to satisfy the punctiliousness of the statutes. It also suggests the importance of careful tests as to the co-existence of visual with other forms of aphasia. This aspect of this case was not settled in the discussion of it, which followed, as Bateman records, before the Society of Legal Medicine of Paris. But the co-existence of visual with the verbal aphasia is compatible with true aphasia and insanity.

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<sup>†</sup>Billod *Annales Medico Psychologiques*, tome XVIII.



Hunt up the annals of the Society and discuss this case among yourselves and read Langdon and the other writers I have quoted, if you wish further to seek to solve this psychological problem during your vacation. I place Bateman and the transactions of the Society of Legal Medicine at your disposal for the purpose, if you wish, to go further over the subject now. However, I shall not question you on this case in the examination, and that probably settles it so far as you are concerned at present.

Bateman, also cited by Langdon (page 40) records a case of hystero-epileptiform aphasia, in which the paroxysms of loss of speech were total but intermittent, lasting from a few hours to five or six weeks, the speech failure always coinciding with pain at the nape of the neck and its restoration being invariably accompanied by pain in the lumbar spine. There was an element of hysteria here, as Langdon says, but the nuchal pain points also to the vasomotor disturbance as well. A blow in this region has been known to cause an attack of epilepsy. Chronic epilepsy and epileptic aphasia may end in and be associated with insanity.

Dr. Langdon records from his own observation (page 40-41) "an example of recurring attacks of functional cortical (hysterical?) aphasia," in a widow aged forty-six, who "passing along a crowded thoroughfare with a satchel containing several hundred dollars, the proceeds of the sale of her entire property, was stricken speechless from the moment her satchel was snatched from her by a thief, who escaped with his booty. She remained speechless for several weeks. "Under general nutritive and hygienic measures she recovered," but had the recurrence often from slight causes, both yielding to treatment in a few days. One of these attacks followed a fall with unconsciousness, according to her statement.

"During these attacks," as Dr. Langdon says, "questions of legal competency might easily arise. Between the attacks, however, there can be no doubt of the patient's capacity to conduct ordinary affairs with average judgment." I should say so too, in regard to many of such

cases. It will be for you to differentiate in every case between epilepsy simply and epileptic insanity. You will be given to understand the more complete diagnostic differentiation between epilepsy and epileptic insanity or insanity with or proceeding from epilepsy, later on in the course. An epileptic is temporarily, periodically and convulsively abnormal in his mental condition. He is often transitorily insane, but when he is simply comatosed and convulsed, he is not insane. His brain has simply suspended business and insanity is a perverted volitional perversion of the mental operations, with more or less of associated abnormal consciousness.

If you study aphasia intimately in its medico-legal aspects it will enlighten you much, not only in regard to the brain's remarkable special and related general functions, but its study can not fail to improve your knowledge of the human mind also, and thus give you a better understanding of yourselves, as well as others a—very proper study for physicians.

Here is a case which, while neurological consultant at the city hospital, I often observed and carefully studied and which at my instance, my good, learned and much lamented friend, Dr. D. V. Dean, the then superintendent, recorded in my journal, the *Alienist and Neurologist*, as far back as 1880. It is one of aphasia and agraphia, but one whose sanity could not be doubted.

#### “APHASIA AND AGRAPHIA WITH PROGRESSIVE IMPROVEMENT.

“D. K. R—, aged fifty years, native of New York, resident of St. Louis, single (?), comedian, medium-sized man with pretty good physique and well formed head, right-handed. No history of syphilis obtainable, and family and personal history otherwise good—so far as can be learned from patient or his acquaintances. While acting a part in which he was well up, at the Globe Theater, patient suddenly lost all command of speech, though his part

still remained clear. A few days afterward he was brought to this hospital (City Hospital, St. Louis). At the time of admission, patient appeared to be in fair health, though somewhat anæmic. No hemiplegia, right or left. What at first might be taken, while his features were at rest, for a slight paretic condition of the right oral muscles, appeared to be an acquired peculiarity—patient evidently being accustomed to assuming dignified and deliberate attitudes, and sober, if not thoughtful, looks, during the intervals of speech, even when he attempted the jocose. His tactile sensibility to temperature, and his sense of smell, taste, sight and hearing were unimpaired. The half dozen words, more or less, of his vocabulary, he articulated without awkwardness and distinctly. His gestures were usually expressive; his dancing somewhat comic but never shambling. No albuminuria, no heart-lesion, no atheromatous feel at the radial pulse. Did not complain of pain in the head, and did not know of receiving any injury of the head from blows or in other ways. Had no delusions. He could not write; and in answer to almost any interrogation he would reply: '*Somebody, yes, sir; here*' (gesturing toward his forehead) '*good, here,*' (toward the lower part of his face and neck vaguely, and shaking his head) '*somebody, you bet.*' While he did not seem to be ashamed of his impairment, like some aphasics, he appeared to be nonplussed, and not simply annoyed and vexed, like one who, feeling, without success, for his word, can at least say, 'pshaw!' with a meaning to be understood. Still, he would strike an attitude, as if that furnished relief, and he supposed himself made clear to the inquirer. If asked for a pen, or a broom, or a cup, etc., he would start for and get it with great alacrity and ceremony, repeating his '*somebody*' and the like. He gained, from day to day, adding to his repertoire of words, '*good man, you, you, me, this, this,*' (pointing to two fingers, and meaning he would go out in two days); and, by degrees, he came to write his own name and mine quite legibly. At his own request he was discharged, March 34, 1879.

"May 20, he was re-admitted, and he remained until

June 3d. During this sojourn he made himself familiar with everyone who would take time with him, and when not thus occupied or with work, he busied himself writing on slips of paper, his own name and others, with business addresses, etc., some of which he wrote from memory, not having them before him to copy—though, after once writing a name, he used that as a copy or improved upon it—and copying two or three notices. Holding up four or more fingers and then going to the calendar to show on what day of the week the fourth or other day from current date would fall, he would say: ‘Good man! *this, this!*’ and write, McNanny and R—— is going out next Monday, D. K. R——. Left the Millon Jasper Company in Louisville K. Y., D. V. Dean, H. H. Smit, Sam Smit, D. K. R——,’ etc., etc. From his first admission he could sing, exceedingly creditably, several airs, notably the Marseillaise, which he carried through with a single syllable.

“Today, Nov. 22, 1879, I sought out his place of employment in a saloon, and, not finding him in, left a note, asking him to call and see me at the hospital, which he did, bringing my note. He brings the Grand Opera House hand-bill for Thanksgiving week, and says: Mary Anderson very *fine*, sir. finest in the *land*; Hunchback very *fine*, sir; Meg Merrides (for Merriles) finest in the *land*.’ Evadne and Ingomar he points out for me to read, and can pronounce after me. Remembering my little son, he pats his shoulder and says to the child’s mother: ‘Finest in the *land*, sir.’ He is as sanguine and anxious about his speedy recovery as he was, when a patient, about being well enough to go out of the hospital in two or three days; and every now and then he says: ‘This man, Bedo (Dr. Bidaux) says: one, two, three weeks—I *hope* so *anyway*.’ Aphasia he pronounced after me; and my explanation of his ailment, and how he may improve, and that he may, perhaps, educate a right speech center, etc., he seems not only to fully understand, but to be delighted with, as it appears to be the first ray of real light that has been let into his consciousness, concerning his condition; and he seems to enjoy, very much, the idea of his left-handedness and



right speech center, etc., etc., patting alternately his right temple and left arm, and left temple and right arm, saying, antithetically: 'Here, *here*; here, *here*.' His vocabulary is yet very limited; his expressions are incoherent, except such as he has practiced, and they come in much too often; but, at the present rate, he bids fair to go on to such a measure of recovery, at least, as will enable him to take care of himself. Today he distrusted his ability to sing, but just a start from the piano and he is as ready with the Marseillaise as of old. Says he never had syphilis.

"The case is of special interest because of the absence of hemiplegia, right or even left, from the beginning, the absence of mental aberration also, from the beginning—and, therefore, as a case of aphasia and agraphia, pure and simple—and because of the marked and continually progressive improvement in ability to read and write; and because this improvement, taken in connection with the fact that the patient was a comic actor, suggests the probability that the opposite speech center was active and is, therefore, more susceptible to education than would ordinarily be the case in a man of his age, and the likelihood of a useful re-acquisition of speech as compared with what might be effected from the left center after so chronic an impairment.

"The patient promises to visit me from time to time, that I may be advised of his progress."

#### PSEUDO APHASIA.

There are forms of altered speech utterance due either to irritation of the speech centers or from other psychic areas in the brain or originating in the speech center itself, which may appropriately be referred to in this connection, though they are not so generally discussed by writers on neurology in this relation, or in fact in any relation.

The muttering gibberish of idiocy, which contradistinguishes this condition from imbecility, where the capacity of normal speech exists, is an implication of the speech

area in the general arrested cerebral development and might be classed as idiotic aphasia or the aphasia of idiotism or "gibberish" aphasia as Langdon has called it. But the sort of speech perversion I refer to is of an irritative functional sort so far as the speech center is concerned. It is often displayed in verbal auto-rhythmic forms of speech repetition, as in some of the cases I have elsewhere described under the caption "Auto-Rhythmic Psychoneurosis."\* Such patients will some of them repeat words or cadences of a once familiar song and say or sing nothing else, like the young man who kept repeating the words "Beethoven, Beethoven, Beethoven," and the woman who constantly reiterated "Yes, I love God; yes, I love God," and the man who repeated "Once one is two, once one is two," as described in that paper, and the other one there who sang monotonously, "My God, how can I stand it; my God, how can I stand it—give me a chew of tobacco—my God, how can I stand it." These patients could be induced, at times, to say other words and some of them, after recovery speak naturally enough, like the young lady who kept repeating the words, "Chickie, chickie, chickie," all day long, reported by me in the same paper. She recovered in about six weeks and had spoken other words before recovery in a natural manner.

Repetition of a word, a tune or a phrase is characteristic of this form of speech disturbance and disturbance is what it is, rather than organic speech center damage. These cases are mostly examples of mental aberration, with coincident speech center rhythmic excitation. They do not, like the true aphasic, show speech center embarrassment so much as mental restriction to a limited phraseology which they continually repeat, not as the aphasic does, with his limited, almost obliterated vocabulary and with difficulty, but with apparent fluency of diction, so far as diction goes. The limitation appears to be a psychical limitation and perversion above and beyond the speech center in the brain and not a psychomotor one due to circulatory disturbance. They do not simply utter with difficulty a limited monosyllabic speech, as the aphasic usually does.

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\* *Alienist and Neurologist.*

They seem delusionally indifferent to a wider range of verbal expression. Their language is psychically self-limited, apparently because of some delusive concentrated idea, as their often monotonously and limited and continually repeated acts are. This condition presages insanity and is usually a symptom of mental aberration.

I mention the condition briefly to warn you against mistaking the counterfeit for the genuine aphasiac, as you should guard yourselves from including the apparent aphasia of deaf mutism and idiotism with true aphasia.

There are delusive forms of paronomia and paraphasia and paraphrasia in insane states of mind which must also be excluded from being considered as true aphasia. Paraphasia is often choraëiae.

Of course you will not be deceived by any form of paraphrasia, for that belongs to altervoice. Nor must you suffer yourselves to be lead into error by any form of glossoplegia, as I have already admonished you.

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# SUBCUTANEOUS DRAINAGE IN THE SUR- GICAL TREATMENT OF HYDRO- CEPHALUS INTERNUS.

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**T**HE UTTER futility of all kinds of internal and external medication in the treatment of hydrops of the ventricles of the brain is generally conceded. Post-mortem findings tend to prove that this condition results most frequently from meningeal tuberculosis, hereditary or acquired. With very few exceptions indeed, infants thus affected succumb in a short time to the immediate effects of the primary disease or the resulting cerebral compression, or to a combination of the two causes. For a long time surgeons have deemed it necessary to devise a surgical procedure that would hold out some encouragement of relief in these otherwise almost hopeless cases. The late Professor Daniel Brainard, the founder of Rush Medical College, had an abiding faith in the curative power of iodine in the treatment of hydropic affections of the ventricles, peritoneal and pleural cavities and the tunica vaginalis. He advised tapping and injection of a dilute solution of iodine in the treatment of internal hydrocephalus. Although his attempts in this direction proved failures, his confidence in the therapeutic value of iodine in the treatment of this affection re-



mained firm. There can be no question concerning the occurrence of hydrocephalus independently of tuberculosis in the form of a simple transudation or uncomplicated hydrops, and it is in this class of cases that we look hopefully to some sort of successful surgical intervention. The experience of the last quarter of a century has also demonstrated beyond all doubt that many cases of tuberculosis of the serous and synovial membranes accompanied by hydrops are amenable to successful surgical treatment by incision and drainage and by tapping and iodoformization. I will mention in this connection only tubercular hydrops of joints and the peritoneal cavity and hydrocele as the most convincing examples of the force and correctness of this statement.

#### WHAT HAS SO FAR BEEN ACCOMPLISHED BY PUNCTURE AND DRAINAGE OF THE VENTRICLES?

We would naturally anticipate that puncture and drainage of the ventricle would yield the best results in hydrops of a non-tubercular origin within a yielding skull. It is in cases of this type that death results most frequently from purely mechanical causes remedial by surgical treatment. Puncture with and without aspiration has yielded at best only temporary improvement. The same can be said of simple hydrocele of the cord and tunica vaginalis under the same treatment. It is very seldom the case that puncture and evacuation of hydrocele in the adult results in anything better than temporary relief, a recurrence, sooner or later is the rule. If this is the outcome of a very large experience with this affection it is not surprising that the results of the same treatment of hydrops of the ventricles under greatly more complicated conditions should have been no more successful. The rapid removal of a large quantity of cerebro-spinal fluid is fraught with danger even in cases in which the skull is yielding, as it often leads to a serious and not infrequently to a fatal degree of congestion of the brain and its delicate and extremely vascular meninges.

The temporary improvement following this treatment is always of short duration, as the fluid removed is soon replaced by a new transudation which finds a ready outlet through the weakened walls of the damaged delicate capillary vessels. Intraventricular medication, as suggested by Brainard, after tapping is attended by immediate and remote risks, the gravity of which it is impossible to predict. This combined procedure resulted in marked improvement in one of my cases. The patient was a young man, the subject of vague cerebral symptoms which pointed to abnormal intracranial pressure. I trephined over the middle of the fissure of Rolando. The dura bulged into the cranial defect, was very, tense and cerebral pulsation could neither be seen nor felt. The needle of an exploring syringe was inserted into the lateral ventricle and about two ounces of clear cerebro-spinal fluid escaped. An ounce of a weak aqueous solution of iodine was injected. The operation was followed by a marked cerebral irritation which subsided after a few days. The improvement which followed was a decided one and proved to be of a permanent character. This case was an isolated one in my experience as in all others in which tapping was performed I have witnessed nothing more than temporary relief and in not a few the operation undoubtedly hastened the fatal termination. Lumbar puncture, as advised by Quincke, is attended by less immediate risk but has yielded no better lasting results.

A large experience has furnished sufficient evidence to prove that internal hydrocephalus is not amenable to successful treatment by puncture and evacuation of the abnormal amount of cerebro-spinal fluid, even if the procedure is frequently repeated. Recognizing the inefficiency of simple tapping as a remedial agent, surgeons have gone one step farther and have resorted to drainage of the ventricle. Drainage was first recommended by W. W. Keen in 1890 (*Philadelphia Medical News* September 20, 1890). He reached the lateral ventricle by making an opening in the skull in the adult at a point 32 mm. above a line drawn from the lower border of the orbit to the occipital protuberance and 33 mm. behind the external-

meatus. Prof. Bergmann selects the frontal protuberance as the point of entrance into the skull. Over the eminence and a little toward the inner side a short vertical incision is made down to the bone. With a small drill or Doyen's fraise the frontal bone is opened. A grooved needle is then inserted in a backward and slightly downward and inward direction, the needle is advanced until cerebro-spinal fluid escapes. The needle serves as a guide in inserting the drain. So far all cases operated upon by drainage in children with yielding skulls have died with the exception of the case of Broca, a boy four years old, who appears to have recovered. The cases collected by Henle, from the Clinic of Mikulicz, illustrate the dangers of drainage of the ventricle and the limitation of its therapeutic power. External drainage is connected with two great risks: 1. Too rapid evacuation of the cerebro-spinal fluid and its consequent harmful intracranial congestion. 2. Infection. All of my little patients treated by drainage have died from one of these causes. With a view of guarding against the first of these dangers very small rubber drains have been employed, but as the escape of fluid is continuous, a very large amount can escape into the absorbent dressing in a comparatively short time. The withdrawal of a large quantity of cerebrospinal fluid in a few hours may have other influences upon the vital processes, aside from its unfavorable effect upon the intracranial circulation. The risk of infection in open drainage is always great. In infants and young children it is extremely difficult to procure and maintain for any length of time asepticity of the field of operation. The constant leakage by saturating the dressing in a short time is another element favorable to infection. If we can obviate these two sources of danger to any extent, drainage for internal hydrocephalus will yield more encouraging results. This I believe can be accomplished by substituting subcutaneous for open or external drainage. The cerebro-spinal fluid, as far as its physical properties are concerned, resembles very closely normal salt solution. The rapidity with which normal saline solution is absorbed when injected into the subcutaneous connect-

ive tissue is well known. There is no reason why the connective tissue should behave differently toward the cerebrospinal fluid. It seemed to me if we could drain the cerebrospinal fluid into the pericranial connective tissue we would have it in our power to regulate its escape with greater precision and minimize the danger of post-operative infection. With these ideas in view and with such an expectation, the case of hydrocephalus here reported was operated upon by establishing subcutaneous drainage.

CASE OF HYDROCEPHALUS INTERNUS, COMPLICATED  
BY SPINA BIFIDA. SUBCUTANEOUS DRAINAGE  
OF THE RIGHT LATERAL VENTRICLE. ELAS-  
TIC COMPRESSION OF SKULL.

The patient was Helmuth Rohden, ten months old, of German parentage. No hereditary disease in the family. Parents healthy. Of the two other children a sister fourteen years of age is in fair health, while a brother born prematurely five years ago died two weeks after he was born. The delivery was normal. The child weighed eleven pounds and appeared to be well developed and free from any congenital defects, with the exception of the spina bifida. Two days later the parents discovered a swelling the size of a small hen's egg in the lumbosacral region in the median line. The swelling was soft and the surface presented a bluish color. The attending physician recognized the nature of the swelling and advised an immediate operation. The little patient was taken to a hospital and was operated upon the next day. The day following the operation, that is when the child was four days old, it was noticed that the head had become considerably larger. The wound healed by primary union and at the end of three weeks the child was discharged from the hospital. A short time after the return home, spina bifida, for such was the dorsal swelling operated upon, returned and steadily increased in size. The head also increased progressively in size and when the child was four



months old measured thirteen inches in its greatest circumference and fourteen inches from one external meatus to the other as ascertained by measurements made by the parents. Repeated measurements showed that the increase in size averaged about one inch every month. The child did not appear very ill at any time, was nursed regularly by the mother. Commenced to talk at seven months but could neither walk nor stand without assistance. When the mother was seven months pregnant she was frightened by a dog and fell against an iron fence, a circumstance which she believes might have had a harmful effect on the child. The child was admitted into the Presbyterian Hospital, December 18, 1902. The patient is small for his age, pale and marasmic. The head is enormously enlarged measuring twenty-six inches on a level with the frontal eminences and occipital protuberance and twenty-nine inches from ear to ear. Figs. 1 and 2. No ossification of any of the sutures. All of the cranial bones widely separated and freely movable. Fontanelles very large and pulseless. Scalp very thin, growth of hair scanty, subcutaneous veins numerous and greatly dilated. Eyes prominent. No paralysis or impairment of special senses. The sac of the spina bifida has reached the size of a woman's fist, and is translucent, the skin covering it including the scar following the operation. Physical examination of the chest and abdomen revealed nothing abnormal. The X-ray picture of the head indicated the extent of the hydrocephalus and the imperfect development of the cranial bones. The whole scalp was thoroughly shaved and disinfected and the operation performed on the following day in the Surgical Clinic of Rush Medical College. The point selected for the opening into the lateral ventricle was the open coronal suture on a level with the frontal eminence on the right side. Fig. 3. All of the tissues down to the membranous connection between the frontal and parietal bone were included in a horse shoe shaped incision including a flap an inch and a half in width and two inches in length with the base directed downward. After a careful hemostasis the membrane and dura were incised with a small,

straight, narrow bistoury. Into this very small opening the thin veil of brain tissue covered by the arachnoid and pia bulged. The ventricle was punctured with a grooved director and clear cerebrospinal fluid escaped in a strong jet. A small rubber drain the size of a goose quill with numerous small fenestra was inserted along the groove of the director until about an inch was inside of the ventricle. Fig. 4. The too rapid escape of cerebro-spinal fluid was prevented by clamping the tube. With a fine catgut stitch the tube was fastened to the dura. The remaining portion of the tube about four inches in length was inserted into a large pocket in the temporal region previously made by detaching the tissues extensively from the temporal fascia with Kocher's director. The little skin flap was sutured in place with silk worm gut and horse hair sutures. The entire head as far as the eyebrows was enveloped in a large sterile guaze and absorbent cotton dressing held in place by a gauze bandage over which light compression was made by a few turns of a very thin rubber bandage. No anesthetic was used. In returning from the operating room the temperature was normal, pulse 126, respiration 28, pupils normal. At 11:50 the same evening the pulse was 140, temperature 100 °F. At 1 p. m. the following day the pulse was 160 and the thermometer registered 104.2° F. Vomited once. Icebag applied over the dressing.

The next day the dressing was removed. Wound healing by primary union. Temporal region distended by the accumulated fluid. Eyelids on same side oedematous from infiltration of the tissues with the cerebro-spinal fluid.

No muscular rigidity or other indications of meningitis.

On the 21, oedema remained about the same, circumference of head reduced to 25½ inches and cranial bones are not only in contact but begin to overlap each other.

From this time the temporal swelling and oedema of eyelids and face gradually diminished.

On the 23, the circumference of the head measured 24¾ inches and distance from ear to ear was diminished to 19 inches. The sac of the spina bifida is collapsed and remains so when the child struggles or cries. The diminution

in the size of the head and the overlapping of the cranial bones are shown in Fig. 5. The temperature continues to range between 102°-104F. The child takes nourishment; no vomiting; no focal symptoms indicative of intra-cranial infection. Wound healed when the sutures were removed one week after the operation. At this time, December 26, the drain was removed by making a small opening over its distal end in the temporal fossa through which it was extracted without any difficulty. A considerable quantity of clear cerebro-spinal fluid escaped. The lumen of the tube was patent throughout and free from fibrinous masses. A few minute fibrinous flakes escaped with the serum. The incision was sutured with horse hair.

The circumference of the head at this time was reduced to 24 inches. The little patient died at midnight December 27, having shown a relish for food to within a few hours of death and having manifested the same degree of intelligence as before the operation.

Unfortunately no post-mortem was made, being objected to by the parents. The immediate cause of death is obscure to me. The pulse and temperature would suggest infection, but all the usual brain symptoms so constantly attending acute meningitis were absent. The swelling outside of the skull was caused solely by the cerebrospinal fluid. At the time the tube was removed this fluid was as clear as when the ventricle was first opened. The rise in the temperature set in a few hours after the fluid was drained into the subcutaneous connective tissue and the question might arise whether or not by the absorption of this fluid some phlogistic substance found its way into the general circulation. Although this case terminated fatally as most of such cases will under any kind of treatment, it is apparent, that subcutaneous drainage is preferable to open drainage for reasons that have already been enumerated. This case proves conclusively that the cerebro-spinal fluid is quickly absorbed by the connective tissue almost as soon as it escapes. The elastic compression of the skull resulted in superficial necrosis of the scalp at points where the pressure was greatest as shown in Fig. 5. I made use of elastic com-

pression for the purpose of hastening the approximation and overlapping of the cranial bones, but I am inclined to believe that in this case the degree of constriction was in excess of the necessary extra-cranial mechanical requirements. In cases which survive the immediate effects of the operation the ventricle can be medicated by injecting iodine or other solutions through the rubber drain by puncturing it through the scalp with the needle of a hypodermic needle, compressing the tube on the distal side at the time the injection is made.





FIG. 1. Hydrocephalus Internus. Front View.





FIG. 2. Lateral View.











FIG. 5. Skull Collapsed, Cranial Bones Overlapping. (Posterior View Four Days After Operation.)





## IDIOPATHIC BILATERAL ATHETOSIS\*.

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By PROF. V. KRAFFT-EBING.†

THE rarity of idiopathic bilateral athetosis with respect to cases of unilateral symptomatic (posthemiplegic), the obscurity which exists as to the pathogenesis and localization of this remarkable motor neurosis, first described by Hammond in 1871, alone justify the report of the following case. It is suited to render apparent the significance of the etiological factor of a cold, even without simultaneous endocarditis (case of Leube), and is a pure case, for it occurred in an individual previously enjoying psychical and somatic health.

On the other hand, it shows that (in agreement with a case published by Gnauck and treated in the same way) the therapy (bromide, galvanism) is of value, and in mine would probably have effected permanent recovery, if the patient had persisted.

But the chief value of the case might be that, besides the symptom complex of athetosis, it presented a series of other nervous functional disorders of central origin and coordinated to athetotic manifestations. Of special interest are an essential feeling of cold confined to the area of the athetosis and a defect in sensation, an exaggeration of the deep reflexes, fibrillary muscular tremor in the convulsive region and reduction of the gross muscular strength.

This motor defect is also shown in essentially hemiplegic manner, while on the other hand the athetosis is more intense on one side.

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\*Wiener klin. Wochenschrift, 1889, Nr. 16.

†English by Dr. W. Alfred McCorn, Supt. General Hospital, Elizabeth, N. J.

To draw conclusions from this condition as to the sort of changes in the central organ, could scarcely be permissible, but it points to the cortex at least as the place of origin of idiopathic athetosis and is fitted to support the hypothesis of Eulenberg, who would ascribe athetosis to affections of the cortical motor centers of the cerebrum. Koranyi inclines to this opinion (cortical motor neurosis analogous to chorea?), yet presumes organic changes (chronic inflammation which leads to sclerosis?).

On December 1st, 1888, Anton Hebar, forty-two, from Hungary, married, mason, was admitted to the Graz Nervenklinik. Patient is of a healthy family, does not drink; never had lues, a trauma capitis nor apoplexy.

Patient had felt perfectly well until September 29th, 1888. On that day he rode in an open wagon for three hours in a drenching rain, was thoroughly saturated, intensely chilled and was unable to get warm on his return home, even in bed.

On September 30th the patient went to church, did not stay owing to violent shivering and again went to bed. The feeling of cold was especially intense in the lower extremities, but was also distributed over trunk and upper extremities. On October 1st it disappeared from the legs and trunk, but has since been continuous in the upper extremities. On October 1st the patient noticed he was unable to hold a spoon in his hand, for the fingers were stiff and no longer obeyed his wishes.

The fingers of both hands moved spontaneously, slowly, rhythmically, spread, closed, flexed and extended. These movements were almost wholly confined to the metacarpophalangeal joints. Energetic volitional effort was able to control these spontaneous convulsive movements for a moment. But *e. g.* when the patient had clinched his fist, he was unable to open it again immediately. In repose these movements were weaker, said not to be increased by emotion. Whether they ceased during sleep the patient was unable to say. These movements only appeared in the muscles of the fingers. Grasping, holding objects was no longer possible, so that the patient could

scarcely perform the simplest manipulations of dressing, eating and must give up his trade.

Condition on admission: patient complains of a feeling of cold in both upper extremities from the fingers to the elbows, and of stiffness of the fingers, which are still freely movable, actively and passively. Nutrition, cutaneous circulation, pulse, temperature are perfectly normal. The fingers of both hands are in constant flexing, extending, closing and spreading movements. This convulsive play is confined to the fingers, the other muscles of the upper extremities, as well as those of the lower and facial muscles are intact.

The muscles of the left fingers are affected decidedly the most.

Except rare flexions of the second phalanx of the fourth and fifth fingers, the convulsive movements occur only in the metacarpophalangeal joints and consist in rhythmical and slow flexion with adduction of the thumb. Abduction and adduction (spreading and closing), as well as slight dorsal flexion are observed at times. In the right hand there is a slight flexion, spreading and adduction of the fingers in the first joints; dorsal flexion occurs merely in the middle finger. Writing is scarcely possible for the convulsive movements. Patient writes with extreme effort, scarcely legible, although he makes the letters as large as possible and tries to utilize the momentary periods of repose. He is barely able to eat, to carry a glass of water to his mouth.

No traces of ataxia or intention tremor. The grip is very weak on the right (patient right-handed), left proficient. Besides a slight reduction of the gross muscular strength of the right biceps and in the general musculature of the right lower extremity, it is in no way impaired otherwise. Slight fibrillary tremor of the muscles of the ball of the thumb is seen, as well during convulsive movement as in the intervals.

The examination of the muscles of the upper and lower extremities shows normal reaction to the faradic as to the galvanic current.

The deep reflexes are exaggerated in the upper extremities, especially on the right. The patellar reflex is exaggerated on both sides. Even tapping the patella pressed downward with leg extended, causes it to be jerked up. An intense, but very temporary coarse tremor thus occurs in both legs. The Achilles reflex is exaggerated, still foot clonus is not to be obtained.

Sensation in both hands is essentially deranged. The disorder of sensibility is the most marked in the left and extends on both sides from the fingers to the wrist with decreasing intensity. Here is the boundary of the disorder of sensibility. This is much more intense on the extensor side than on the flexor.

Tactile, temperature and pain impressions are scarcely perceived on the *dorsum manus et digitorum*, yet correctly localized. Money, keys, etc., put in the patient's hand, he is unable to recognize. He does not recognize their removal from the closed hand if the eyes are covered. Patient is conscious of passive movement of the fingers.

He complains of a feeling as though the fingers of both hands were covered with leather. No disorders of sensation in the lower extremities. General condition excellent. No lesion of the brain or cranial nerves, nor of the vegetative functions. Temperature normal.

Prescribed potassium bromide 5,0 pro die. Galvanic treatment daily, stable three minutes, 2 MA. Anode at the brachial plexus, cathode in the neck.

December 10th. No convulsive movements in sleep. The feeling of cold in the upper extremities has disappeared; improvement in sensation for all qualities in the right hand, also left, still thumb, second and fifth fingers wholly anaesthetic.

December 15th. Convulsive movements decrease in intensity and extent. Patient can pick up a large piece of money from the table. Complaints of boring pain in the left thumb and index finger.

December 18th. Increased use of the fingers with decreasing convulsive movements. Patient can pick up a kreutzer. Writing and finer movements still difficult.



Numbness of the finger extends only to the second articulation. Prescribed potassium bromide 6,0 pro die.

December 24th. Gross muscular strength restored in both hands and in right biceps and in right lower extremities.

January 4th, 1889. Sensibility only blunted in third and second phalanx; caliper points separated 7 mm. perceived on all the finger tips.

Finger spasm minimal, limited at times to volar and dorsal flexion of the extended fifth finger on the right and to volar flexion of the extended second, third and fourth fingers of the right and left hand, as well as to occasional slight adduction of both pollicis.

January 15th. Sensibility restored. Still now and then slight formication in the fingers. Patient differentiates objects with eyes covered. Use of fingers only deranged by slight dorsal flexion in the third finger of the right and third and fourth fingers of the left hand. The deep reflexes in both upper and lower extremities significantly exaggerated.

January 27th. Convulsive movements only after longer efforts and temporarily in form of flexion of the extended third and fourth fingers and thumb of the right hand. Normal conditions, except moderate exaggeration of the deep reflexes in the upper and lower extremities.

Patient was discharged in this condition on January 28th. On inquiry the patient reported on February 24th, 1889: "My disease has returned. My right hand is much worse than the left. The fingers are always in motion and I feel pain constantly in my arms. What I grasp with my hands I hold, but I can only do light work. I cannot write."

1897.

Athetosis duplex is doubtless a rare occurrence. While posthemiplegic hemiathetosis, usually traceable to an infantile encephalitis, has been frequent among my out patients, I have had occasion to observe only the two following cases of double athetosis since the publication of

the preceding case among about 8000 nervous and insane cases pro anno. The assumption, that they have symptomatic significance, are residues of an infantile brain disease cannot be directly proven.

#### CASE ONE.

Del....., thirty-four, prebendary, was admitted to my Clinic August 20th, 1896. His father said to be healthy and his mother has ophthalmic migraine, had eighteen brothers and sisters, of whom eight died early, several from convulsions; the living are healthy. A disease similar to that in the patient has not occurred in the family.

D's. birth was normal, had convulsions at three months, which continued for nine months. During this time the symptoms of athetosis to be described developed in the upper extremities. At seven a struma appeared. Patient was of feeble mental constitution, a poor scholar, who could write very well in spite of the spasms of his hands. He learned to walk and talk at the usual time.

At twenty-eight he had right blepharospasm, which at thirty-one affected the left eye, also convulsive twitchings of the face, first on the right, then on the left particularly.

These spasms cease during sleep.

Present conditions: strong physique, tolerably well nourished individual, without vegetative derangements.

Parenchymatous struma of moderate degree.

No oedema, no cachexia.

Cranium slightly flawy, tubercles prominent, circumference 57,5 cm.

Slight intelligence. Cranial nerves intact, except the facial. Convulsions in the face are very frequent. They are usually tonic, rarely clonic, and sluggish. They consist in corrugation, wrinkling the forehead, closing the eyes, lateral distortion and elevation of the corners of the mouth, rising the chin and are more marked on the right than on the left.

In repose the palpebral fissures are narrower than normal, likewise corrugators and frontal muscle remain in a certain state of contraction. The voluntary and mimetic

movement is undisturbed in repose, still the attempt to wrinkle the forehead at once causes convulsive closure of the eyes.

Patient constantly complains of boring and burning in the conjunctiva, which sensations are increased on the occurrence of the convulsions. He also has a feeling of rigidity of the lids, which causes him to rub them. Conjunctival catarrh does not exist.

Speech is slightly affected, articulation indistinct. Convulsive twitching of the corners of the mouth often occurs in speaking. Mechanical excitability of the facial is not increased.

Normal conditions in the trunk and spinal column. The right scapula is higher than the left, the right shoulder projects forward farther than the other.

The upper extremities are in an almost continuous state of spasm with flexed and pronated elbows and slight volar flexion of the wrists, but which are readily extended passively.

Athetoid movements in the fingers in the way of flexion, abduction, extension, preferably in the metacarpophalangeal joints. These, as well as all other finger joints are flaccid and abnormally flexible in passive movement. Slight convulsive symptoms in the wrists are often combined with the athetoid movements of the fingers. The voluntary movement is much impaired by these convulsive symptoms.

Certain residues of a focal disease are to be found nowhere in the upper extremities, neither defects in sensation or motion, no atrophies. The gross muscular strength is everywhere slight. Dynamometer only 6 on the right, 8 ko. on the left.

No derangement is found in the lower extremities, still the deep reflexes are exaggerated. This exaggeration is still more pronounced in the upper extremities; the direct muscular excitability is increased.

Patient remained at the Clinic only a short time and was unsuccessfully treated with thyroids.

## CASE TWO.

B., forty-six, a gentleman, admitted April 20th, 1897, whose father died of apoplexy. His father's father had also succumbed to cerebral hemorrhage. His mother and one sister had cephalia. Five other brothers and sisters are well and born at term. Patient is a seven months' child, was kept alive with difficulty. Lues may be definitely excluded.

When six months old B. had a cerebral attack (unconsciousness, lay as though "dead" for an hour). Whether convulsions were combined or sequela, the mother does not remember. She only knows that the present trouble had appeared at one year of age.

Efforts to talk and walk appeared at the proper time. But the patient was able to walk with difficulty in a go-cart and his speech has been deranged from the first. A paralysis has never been observed. Intensity and extent of the present motor derangement have not changed for twenty years at least.

Patient had many of the diseases of childhood without noticeable consequences. A psoriasis vulgaris has existed since seven. He was always irritable, choleric, felt unreasonably slighted by his brothers and sisters. The mental condition has not been bad. He learned the mother tongue and French quite readily, also arithmetic. He was unable to write owing to his motor disorders. Since a fall when walking, without injury, at fifteen the patient made no further effort to walk. Since then he has remained in bed or a reclining chair. He could not get up alone, must be fed. He has always been cleanly in his habits.

Present condition: patient small, delicate, cranial circumference 56 cm., supraorbital eminences prominent. Most of the teeth missing, jaws atrophied, traces of rachitis in the thorax.

Vegetative functions unimpaired. Complete virility. A continuous convulsive play of the muscles occurs in repose and in bed, which ceases in sleep, except minimal manifestations in fingers and toes, and is markedly increased by intention and emotion particularly, so that the



patient presents a grimacing, writhing, stretching, sprawling, regionary twitching, fidgeting aspect.

Hands and feet are constantly and intensely affected by aimless, incoordinated, extremely sluggish convulsive movements. The fingers and toes are most unaccountably flexed, extended, turned and spread to the most extreme positions and the different phases follow each other irregularly. An abnormal flaccidity and flexibility of the finger joints permits these extreme movements.

In the large joints of the extremities slow movements occur, so that some phases last for a minute.

Phases are found in which arms seemed pressed firmly to the thorax and rotated outward, forearm and hand in extreme flexion, the latter very strongly pronated and flexed ulnarly. Extension in all joints follows, likewise with elevation forward. In the lower extremities analogous convulsive movements occur, in that thigh and leg at one time are markedly flexed, again tetanically extended. The trunk muscles are implicated less than the extremities. The body is tumbled about the bed, twisted snake-like, bent backward; the abdomen at one time seems retracted, again inflated, the pelvis turned in all directions. The head is inclined to be bent backward and bored into the pillows.

Implication of the face muscles is very significant. The face is distorted by constant grimacing and rendered wholly incapable of expressing the patient's actual frame of mind.

By every effort the convulsions are increased and pass to the facial muscles. If the patient tries *e. g.*, to express his gratitude for a little favor, the face is distorted by the most violent grimacing, the restlessness of the whole body is increased, at first the patient is only able to utter a whining, grunting laugh instead of words, until finally after many and futile efforts, he is able to enunciate a difficult and chopped "thank you". But in repose facial muscles and speech are disturbed by constant convulsive manifestations. The mouth is pointed, the lips twisted, protruded proboscis-like or retracted, the corners of the mouth drawn far to one or both sides, when the platysma is of-

ten contracted; the forehead is wrinkled in transverse folds, the eyes closed convulsively or wide open.

Speech is choppy, scanning. The individual syllables are difficultly, explosively enunciated, often too loud, almost crying, completely separated, without modulation, more often intermingled with wholly inarticulate and gurgling sounds.

The jaws are rarely implicated and in form of involuntary opening and closing. The pillars of the fauces are drawn upward or to one side. Mastication and swallowing are often deranged by convulsions. Patient claims fluid nourishment often regurgitates per nasium, which has not been observed at the Clinic.

Repeated inspirations and expirations with snoring and rattling noises have occasionally been constated. Dyspnoea or cyanosis did not occur.

All the movements mentioned seem to be athetoid, owing to their extremely slow occurrence. It is different with the tongue, which is constantly in motion in the buccal cavity, rolled up, twisted about, sometimes protruded or retracted. These convulsions occur with remarkable rapidity and resemble chorea more than athetosis. Several grimacing, tic-like movements of the face also give this impression, likewise in the extremities occasionally jerking and swinging convulsive movements, appearing and disappearing quickly. On longer observation all these give the impression that a chorea exists with the athetosis, but which is not or only imperfectly manifested from the more evident athetotic spasms.

The eye muscles alone are entirely free from convulsive symptoms.

Certain evidence of residues from focal brain diseases in form of palsies, etc., is not possible in the patient. But their existence is not probable. Localized atrophies nowhere exist. But it is worthy of note that the affected muscle areas are not hypertrophic, in spite of many years of excessive muscular action. The patellar reflexes are exaggerated.

No functional disorder of the sense organs exists. Cu-

taneous sensation is normal, the deep not ascertainable. Patient complains of frequent pains in the joints. Patient presents nothing striking psychically, except an euphoria not in harmony with his condition. The psyche seems unaffected, still a thorough examination is not possible, owing to the difficulty in making him understand. Patient computes well, speaks German and some French, and is completely orientated as to his surroundings.

The patient's condition has not changed during the many weeks' observation at the Clinic. Amyl hydrate, hyoscine hydrochlorate to 0.001 pro die proved ineffectual for the motor neurosis. A reduction of the gross muscular strength was never and nowhere demonstrable.

The difference between the latter two cases and the first, occurring idiopathically and at a mature age, is unmistakable. It admits of no other interpretation than in the sense of a cortical neurosis, analogous to an idiopathic chorea, and by its peculiar etiology, by the derangements of the cutaneous and deep sensibility in the radius of the athetosis, as well as by the temporary result of the treatment, acquires a special relief.

The latter two cases have many analogies and may be definitely claimed as such of symptomatic athetosis following an infantile brain disease, which must be regarded as bilateral.

In case D., where the athetosis was originally confined to the upper extremities and after about thirty years occurred as athetotic convulsive manifestations in the face, indications of the causative brain disease are found, in so far as on both sides in the area of athetosis the gross muscular strength is reduced and the deep reflexes seem exaggerated. In case B. such evidence does not seem to exist, but here the origin of the disease, evidently following a cerebral attack, speaks in favor of regarding it symptomatic. As well known athetosis most readily develops when the cortico-muscular tracts are only slightly affected, but not destroyed. Thus is the fact explained, that pronounced paralysis, its spastic character, etc., are only exceptionally combined with athetosis.

The similarity of hemiathetosis with the former known hemichorea post-epileptica, Oulmount (1878) has correctly referred the first to a focal disease (infantile cerebral paralysis, by poliœncephalitis) and to ascribe the bilateral localization, which opinion is shared by Richardiere, Gowers, GitotEAU, Osler, Simpson, Massalongo, Freud and others. But Audry (1892) does not hold this opinion for all cases of bilateral athetosis. He refers in this respect to cases in adults and children, in which a relation to a focal disease was not demonstrable. Such a case might be the one communicated by me in 1889. As there is a posthemiplegic organic and idiopathic, neurotic chorea, it is equally conceivable that is the case in the related athetosis, only it must be admitted from experience, that cases of idiopathic athetosis are of the greatest rarity.

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# MIXOSCOPIC ADOLESCENT SURVIVALS IN ART, LITERATURE AND PSEUDO-ETHICS.\*

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CHICAGO.

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**A**DOLESCENT storm and stress often dominate mentality long after adolescence, even in those who seemingly passed through these periods without nervous breakdown. Many instances of morbidity cited as demonstrating relationship between genius and degeneracy are the outcome of adolescent stress, in part the offspring of environment. More than a decade and a half ago I pointed out that Pope and Rousseau evinced decided evidence of adolescent stress.† Both suffered from the struggle for existence between the reproductive system and the central nervous system during this period. Lack of equilibrium, between sensibility and will power, was peculiarly present in them.

Pope's malignancy, his coarse language to women (albeit not uncommon in the age of Queen Anne among society people), intense egotism, suspicious bias, mean conspiracies to secure notoriety, tricks on his dearest friends were due to arrest of development from adolescent stress.

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\*Continued from May *Alienist and Neurologist*.

†*Alienist and Neurologist*, 1887.

There was much of the microscopic prig in Pope. His seemingly "vivid imagination, coupled with a bright intelligence, gave him a seducing aspect but" his "judgment was singularly limited, attenuated or false." His poetry was a methodic art; his philosophy, caught from Bolingbroke, was arhythmic rendition of the latter's "freethought."\* There was an idealization of primitive man not justified at Pope's time, but an English notion persistent since Elizabethan days from hatred of Spain and Spanish cruelties in Peru, Mexico and the West Indies. Though correct in rhythm and melodious in diction, like Edgar Allan Poe, Pope fell far below him in worship of beauty and in sense of aesthetic need of contrast. Poe, satirized by Emerson as "the jingleman" and by Lowell,† as:

"Poe with his raven-like Barnaby Rudge,  
One half of him genius, the other half fudge"

felt beauty. Pope saw in beauty rarely an orderly channel for rhythm. Pope (A Roman Catholic by profession and heredity) voiced freethinking philosophy; his ear for rhythm making its didacticism seem epic poetry. Pope's tendency to pseudonymous and anonymous antics was decidedly well marked, and loomed up in many controversies, notably that with Lady Wortley Montague. The suspicious element is especially noticeable in his antagonism to Addison because of the advice given against recasting the "Rape of the Lock." As Macaulay‡ shows, this was good advice from the standpoint of precedent in recasting poems. Pope succeeded where failure was much more probable, but this did not justify him in alleging envy as a cause of Addison's advice.

Pope has been not undeservedly called "poet pug" because of his ape-like antics. The monkey character as depicted by Milne-Edwards§ closely mimics that of the adolescent neurasthenic. Levity is one of its salient features and its mobility is extreme. It can readily be shifted from

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\*Pope: *English Men of Letters*.

†A Fable for the Critics.

‡Essays, Addison.

§Review of *Nervous and Insanity Disease*, 1891.

one mood or train of ideas to another. It is now plunged into black melancholy and in a moment vastly amused at some object presented to its attention. The delight of Pope in inflicting suffering at times, as contrasted with his sentimentality at other times, was an algophiliac expression of monkey-like mobility. With it was combined the suspicious tendencies of primitive man. In Pope is peculiarly illustrated the fact that degeneracy mars rather than makes genius. The lack of equilibrium is of the same type as that seen in the "idiot savants,"\* but is more concealed.

Pope's environment undoubtedly aided his arrest of development mentally and physically. His religion and his persecutory exclusion from public schools thereon resultant, was sufficient soil for suspicious tendencies. One persecuted for his faith has but too great a tendency to a spiritual pride which fosters the primary ego at the expense of the secondary. Pope's sexual deficiency was of a type apt to lead to intense sexual pre-occupation of priggish kind peculiarly fostering to mixoscopia. Pope's better qualities were marred and mangled by the scars of adolescence and by hereditary defect. His much quoted:

"Who shall decide when doctors disagree?"

refers however to doctors of theology, not medicine, as the next line demonstrates.

"And soundest casuists doubt like you and me."

Where Pope shows beauty, least cant and least priggishness is where he is untouched by adolescent stress. Despite his frail frame he exhibits none of the iatrophobia which mars Moliere. His much quoted line illustrates a trust in medicine not unnatural in one who was a friend of Drs. Garth and Arbuthnot.

The Rousseau family, of Geneva, Switzerland, was founded by a Huguenot bookseller, who fled to Geneva in 1551 to avoid religious persecution.† In 1555 he was enrolled a Geneva citizen. For three generations, his trades-

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\*Langdon Down, *Alienist and Neurologist*, 1886.

†Graham's *Life of Rousseau*.



men descendants were quite unknown to fame. Geneva was under an inquisitorial rule quite equal to that of Connecticut in its worst blue-law days. In 1702 Jean Jacques' aunts were publicly admonished for playing cards on Sunday. One of them intensified the offense by claiming they were not playing cards but telling fortunes. Isaac Rousseau (father of Jean Jacques) like his sisters, departing markedly from Genevan conventionalities, displayed in youth hoodlum tendencies. In October 1699, when 19, he was publicly censured with other hoodlums of respectability for having assaulted English officers who passed through his street on a dark night. He was a frivolous, impulsive, excitable, self-indulgent sentimentalist, greatly given to the luxury of self-pity. He was by trade a watchmaker, and at times a dancing master. His wife (the daughter of a Genevese clergyman of considerable culture) died in childbirth with Jean Jacques, who was born weak and sickly. The elder brother, after a scampish youth like that of the father, learned watchmaking, absconded and was never heard of again.

Jean Jacques' father never troubled himself about his early training, leaving that to his aunt, while he employed money left by Jean Jacques' mother for his own indulgence. Isaac Rousseau enjoyed intensely grief over his wife and over himself as the inconsolable widower. He read romances (left by his wife) with Jean Jacques, endured the latter with sentimentality by weeping with apparently intense enjoyment. Jean Jacques was thus very early initiated into the luxury of self-pity, which so looms up in the primary egoism of his "Confessions" and in his suspicionism. The father, when mature, did not entirely abandon the hoodlumism in which bourgeoisie youths like himself emulated the higher plutocracy. In 1722, at the age of 42, he assaulted an officer with his sword; forced to abscond he never returned but remained at Nyon, where he remarried. Rousseau had reveled ere the age of seven in his maternal grandfather's library, which contained: Bossuet's Universal History; Fontanelle's Dialogues of the Dead; Ovid's Metamorphoses; Le Sueur's History of Church and

Empire and Plutarch's Lives. The last, his "Confessions" state, exerted most influence upon him. The influence of the religious history and Ovid probably did much, however, to develop the sexual side of Jean Jacques' precocious nature. This had entered consciousness at the time of development marked by the evolution of the sixth year molar, as the Lambercier incident shows. He had been sent by his maternal uncle to a school kept by Minister Lambercier, where he learned "Latin and that poor rubbish which accompanies it as an education." Here originated at the age of 8, according to Rousseau, his passive algorithmic trend.

"Mademoiselle Lambercier showed toward me a mother's affection and also a mother's authority, which she sometimes carried so far as to inflict on us the usual punishment of children when we had deserved it. For a long time she was content with the threat, and that threat of a chastisement which for me was quite new seemed very terrible; but after it had been executed I found the experience less terrible than the expectation had been; and, strangely enough, this punishment increased my affection for her who had inflicted it. It needed all my affection and all my natural gentleness to prevent me from seeking a renewal of the same treatment by deserving it, for I had found in the pain and even in the shame of it an element of sensuality which left more desire than fear of receiving the experience again from the same hand." It is true that, as in all this a precocious sexual element was doubtless mixed, "the same chastisement if inflicted by her brother would not have seemed so pleasant." The punishment was inflicted a second time, but that time was the last, Mademoiselle Lambercier having apparently noted the effects it produced, and, henceforth, instead of sleeping in her room and bed, he was placed in another room and treated by her as a big boy. "Who would have believed," "that this childish punishment, received at the age of eight from the hand of a young woman of 30, would have determined my tastes, my desires, my passions for the rest of my life." He remarks that this trend drove him almost mad, but he main-

tains the purity of his morals, and that joys of love existed for him chiefly in imagination. Here Jean Jacques evinces the pruriently prudish mentality which combines intense sexual preoccupation with external frigidity. This incident "gave desire such an extraordinary turn that confined to the sensation just described" that he "sought no further and with blood seething with sensuality almost from birth," he "preserved purity beyond the time when coldest constitutions lose their insensibility. Long tormented, without knowing by what, every handsome woman was viewed with a delighted rumination over their physical charms which transformed them into so many M'lles Lamberciers." Here was evident that mixoscopic sense of normal coitus which appears such a virtue to hysterics, masturbatory neurasthenics, inverts, perverts and Narcissus-like auto-erotics. "To fall at the feet of an imperious mistress, to obey her mandates or implore her pardon" were for Jean Jacques, "the most exquisite enjoyment." The more the blood was inflamed by a lively imagination, the greater was the semblance of a whining lover. Havelock Ellis\* remarks that all the former conditions of fear, shame and precocious sexuality were here present in an extremely sensitive child who was destined to become the greatest emotional force of his century, thus rendering him receptive to influences which would have had no permanent effect on any ordinary child. The first sexual feelings are sometimes experienced under the stimulation of whipping at the age of seven or eight; Möll† mentions that he knows such cases, but no permanent perversion necessarily follows. It is, perhaps, not fanciful to see a certain inevitableness in the fact that on Rousseau's highly sensitive and receptive temperament it was a germ that fell and fructified.

At this school Jean Jacques was unjustly accused of breaking the teeth of a comb. The humiliation of being treated as guilty seems to have so intensely entered consciousness that it probably must have excited his passive

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\*Psychology of Sex: Love and Pain.

†Ztschrift f. Paedagogie, Psychiatrie u. Pathologie, 1901.

allogophilistic trend. From this time he claims the delightfulness of childhood vanished. In 1724 he fell under the control of a severe pietist, who made religion a business for herself and a torment to others. At the age of 13 he was apprenticed to a notary by his maternal uncle. The occupation to such a sentimentalist necessarily was repugnant and his master found him stupid and sent him home as incapable. In 1725 he was apprenticed to an engraver, who treated him brutally and demoralized him. He pilfered, fibbed, became cowardly and cunning and finally at the age of 16 absconded. He fled finally to Coffignon, in Savoy, where he was kindly received by the Curè, who saw in Jean Jacques a promising proselyte from Calvinism. Jean Jacques pretended desire for Catholic instruction and was sent to Annecy, to be placed under Madame de Warens, a Catholic proselyte like himself of the "soup convert" type. She was a good looking young woman, addicted to "maternal" flirtations and worthy to have been a member of Catherine di Medici's "flying squadron." "A religion preached by such missionaries could not fail to lead to paradise."

Rousseau went through the ceremony of abjuration (from a faith in which he believed) in expectation of remuneration, with all the *sang froid* of a nationality endued with the well known principle: *Point d'argent point de Suisse*. He was disappointed. His conversion won the sexual and other compassion of Mme. de Warens, whom he called mamma and with whom he lived as lover, protege and companion. His hypocritic abjuration sat very lightly upon his conscience. Indeed he avows practically the same principle in his "Savoyard Vicar," who though a deist, continues to officiate as a Roman Catholic priest. This state of mind was a decided degeneracy from that of the fugitive Huguenot bookseller, who founded the Rousseau family of Geneva.

Rousseau, before returning to Mme. de Warens, after being turned loose in Turin after his conversion, took service as a lackey. While in service, with the flavor of conversion ripe upon him, he stole a ribbon and charged an inno-



cent girl with having given it to him. Ostentatiously remorseful in his "Confessions" anent this dastardliness, he consoles himself with the selfish reflection that "the agony of this sin preserved him throughout life from any criminal act and that his aversion to lying proceeded from his having been guilty of so black and dastardly falsehood." The last, as Graham points out, is a pure piece of fictitious unction to a guilty soul. Rousseau entered later the service of the Comte de Gouvion as a footman, fell in love with the Comte's daughter and annoyed her with attentions. The Abbe de Gouvion, son of his master, then made him his secretary, teaching him Italian. Rousseau became in consequence domineering, careless and neglectful and was turned out with ignominy. He then returned to Annecy to Madame de Warens to serve in the "nondescript position of pupil, servant and lover." He was later sent to a seminary to learn to be a priest, but was found incompetent. He returned to Annecy but soon set off on a vagabond tour with a companion. The latter falling in an epileptic fit, was abandoned by Rousseau, who enjoys in his "Confessions" the luxury of mental self-flagellation over the abandonment. He returned to Annecy, but Mme. de Warens had left. He then went to Lausanne where he pretended to teach music, assuming the name of an Italian adventurer, Venturi, who tried the same dodge. He offered to compose a piece for a man who gave concerts. The piece consisted of a discordant mass of sound and a stolen popular air. He "could not read an air at sight or follow the execution to see if it were rightly played." He got a few pupils and by dint of teaching gained a little knowledge of music. In 1731 he fell in with an Armenian Archimandrite of Greek origin, getting subscriptions for the restoration of the Holy Sepulchre, who made him his secretary. At Soleare the French ambassador became interested in Rousseau and sent him to Paris. Here courtesy frequently led Rosseau to believe he was a lady killer. Resultant realization of the truth disenchanted Rousseau with Paris and he returned to Mme. de Warens.

He became like his co-employe, Claude Anet, (a

shrewd peasant of thirty) at once Mme. de Waren's lover, servant, herbalist and gardener. He then got a place as clerk to the king's surveyor. This certain income he gave up to devote himself to music teaching. He got a few pupils but was really dependent on Mme. de Warens, who admitted him to closer and closer relations. Claude Anet died and left her affairs to the uncertain guidance of Rousseau, who with the strongest wish to save his mistress from ruin, felt he might as well have her money as the speculators who deluded her, and therefore lived and travelled at her cost. He indulged in prayer with "a sincere elevation of the heart" at this time. He studied Locke, Descartes, Leibnitz and Puffendorf, the sociologists of the time. Concentration of mind was a positive pain to him. He had the enjoyment of mental self-flagellation in exaggerating his mental and moral weaknesses. His defects of memory were the doubts of power to remember so frequent in sexual neurasthenics. In 1736, being actively exercised by doubts of his salvation, he tried a species of lot casting quite frequent in devotees, either Calvinists or Roman Catholics, by trying to hit a tree with stones. If he hit it he was to be saved. As he had worked the oracle by choosing a tree thick and near, the result was successful. There was, as I pointed out more than a decade ago,\* nothing abnormal in this procedure. It was one likely to occur to a devotee believing in special providences when laboring under indecision.

His health failed in 1737 and, having perused like most sexual neurasthenics enough physiology to intensify nosophobia, he went to Montpellier to the University clinics.

On his return he found a rival in possession of Mme. de Warens. He left her to become a preceptor, but making a magnificent failure, returned. Failing to dislodge his rival, he set out for Paris "with magnificent projects in his head, a comedy and a music system in his pocket and \$60 in his purse. He was now 29, having spent nine years with Mme. de Warens in a mixture

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\**Alienist and Neurologist*, 1891.

of vagabondism and sentimentality of fine feelings and shabby actions, of high moral enthusiasm and unsavory dependence."

It is of interest at this point to compare him with another great passive algophilist, Sacher de Masoch.\*

Leopold Sacher de Masoch was born in 1836, of a mixture of Spanish-Shemitic (the Spanish ancestors intermarried with "new Christians;" a synonym for forcibly converted Jews. Masoch is Hebrew) German and Slavonic blood. His father (a police director) married a Little-Russian lady.†

The novelist, the eldest child of this union, was not born until after nine years of marriage and in infancy was so delicate that he was not expected to survive. He began to improve, however, when his mother gave him to be suckled to a robust Russian peasant woman, from whom, as he said later, he gained not only health, but his "soul"; from her. He learned all the strange and melancholy legends of her people and a love of the Little-Russians which never left him. To this ancestry and environment the biographer attributes great significance. He was half a Russian by birth, and he lived in a province in whose very mingled races the East and the West meet. When still a young child, Sacher-Masoch was in the midst of the bloody scenes of the revolution which culminated in 1848. When he was 12 the family migrated to Prague and the boy, though precocious in his development, then first learned the German language, of which he attained so fine a mastery. At a very early age he had found the atmosphere and even some of the most characteristic elements and the peculiar abnormal types which mark his work as novelist.

As a child, he was greatly attracted by representations of cruelty; he loved to gaze at pictures of executions, the legends of martyrs were his favorite reading, and with the onset of puberty he regularly dreamed that he was fettered and in the power of a cruel woman who tortured him. The women of Galicia either rule their husbands entirely and

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\*Havelock Ellis, *Psychology of Sex*, III.

†Schlichtegroll *Sacher-Masoch und Masochismas*.

make them their slaves or themselves sink to be the wretchedest of slaves. At 10 the child Leopold witnessed a scene in which a woman relative of his own, on the paternal side, played the chief part, and this scene probably left an undying impress on his imagination. She was a beautiful, but wanton creature and the child adored her, impressed alike by her beauty and the costly furs she wore. She accepted his devotions and little services and would sometimes allow him to assist her in dressing; on one occasion, as he was kneeling before her to put on her ermine slippers, he kissed her feet; she smiled and gave him a kick which filled him with pleasure. Not long afterward occurred the episode which so profoundly affected his imagination. He was playing with his sisters at hide-and-seek and had carefully hidden himself behind the dresses on a clothes-rail in her bed-room. At this moment she suddenly entered the house and ascended the stairs, followed by a lover, and the child, who dared not betray his presence, saw the countess sink down on a sofa and begin to caress her lover. But a few moments later the husband, accompanied by two friends, dashed into the room. Before, however, he could decide which of the lovers to turn against, his wife had risen and struck him so powerful a blow in the face with her fist that he fell back streaming with blood. She then seized a whip, drove all three men out of the room, and in the confusion the lover slipped away. At this moment the clothes-rail fell and the child, the involuntary witness of the scene, was revealed to her, who now fell on him in anger, threw him to the ground, pressed her knee on his shoulder and struck him unmercifully. The pain was great, and yet he was conscious of a strange pleasure. While this castigation was proceeding the husband returned, no longer in a rage, but meek and humble as a slave, and kneeled down before her to beg forgiveness. As the boy escaped he saw her kick her husband. The child could not resist the temptation to return to the spot; the door was closed and he could see nothing, but he heard the sound of the whip and the groans of the husband beneath his wife's blows.



This scene, acting on a highly sensitive and somewhat peculiar child is, Ellis remarks, the key to the emotional attitude which affected so much of Sacher-Masoch's work. As his biographer shows, woman became to him during a considerable part of his life, a creature at once to be loved and hated, a being whose beauty and brutality enabled her to set her foot at will on the necks of men, and in the heroine of his first important novel, the *Emissar*, dealing with the Polish Revolution, he embodied the contradictory personality of his relative. Even the whip and fur garments, Sacher-Masoch's favorite emotional symbols, find their explanation in this early episode. He was accustomed to say of an attractive woman: "I should like to see her in furs," and, of an unattractive woman: "I could not imagine her in furs." His writing paper at one time was adorned with the figure of a woman in a Russian Boyar costume, her cloak lined with ermine, and brandishing a scourge. On his walls he liked to have pictures of women in furs, of the kind of which there is so magnificent an example by Rubens in the gallery at Munich. He would even keep a woman's fur cloak on an ottoman in his study and stroke it from time to time, finding that his brain thus received the same kind of stimulation.

At the age of 13, in the revolution of 1848, young Sacher-Masoch received his baptism of fire; carried away in the popular movement, he helped to defend the barricades together with a young lady, a relative of his family, an amazon with a pistol in her girdle, such as later he loved to depict. This episode was, however, but a brief interruption of his education; he pursued his studies with brilliance, and in the higher side his education was aided by his father's æsthetic tastes. Amateur theatricals were in special favor at his home and here even the serious plays of Goethe and Gogol were performed, thus helping to train and direct the boy's taste. It is, perhaps, however, significant that it was a tragic event which, at the age of but 16, first brought to him the full realization of life and the consciousness of his own power. This was the sudden death of his favorite sister. He became serious and quiet

and always regarded this quiet as a turning-point in his life.

At the Universities of Prague and Graz he studied with such zeal that when only 19 he took the doctor's degree in law and shortly afterward became a *privatdocent* for German history at Graz. Gradually, however, the charms of literature asserted themselves definitely, and he soon abandoned teaching. He took part, however, in the war of 1866 in Italy, and at the battle of Solferino he was decorated on the field for bravery in action by the Austrian field-marshal. These incidents, however, had little disturbing influence on Sacher-Masoch's literary career, and he was gradually acquiring a European reputation by his novels and stories.

A far more seriously disturbing influence had already begun to be exerted on his life by a series of love episodes. Some of these were of slight and ephemeral character; some were a source of unalloyed happiness, all the more so if there was an element of extravagance to appeal to his Quixotic nature, and he spent some blissful days on an occasion when he ran away to Florence with a Russian princess as her private secretary. More often they seem to have culminated in bitter deception and misery. It was after a relationship of this kind from which he could not free himself for four years that he wrote *Die Gescheidene Frau, die Passiongeschichte eines Idealisten*, putting into it much of his own personal history. Eventually he became engaged to a sweet and charming young girl. Then it was that the evil genius of his life met him in the person of a young woman at Graz, Laura Rümelin, 27 years of age, engaged as a glove-maker. She had made various attempts to attract and interest men of superior position, but, although she had had one or two lovers, her success had only been moderate. She now read the *Venus in Furs*, then lately published, and resolved to write to the author. Hitherto Sacher-Masoch does not appear to have met any woman with whom he adopted unreservedly the position he loved to depict in his books. As he himself said, he had conquered his inclinations, having found no woman in whose

hands he would care to trust himself as a slave. Laura Rümelin judged, however, that in approaching Sacher-Masoch it would be desirable to take the tone of the dominating woman he idolized, and she adopted the name of his heroine, Wanda von Dunajew. She had much skill in intrigue, though Sacher-Masoch's love of adventure and extravagance rendered her task easy, and after weaving around him a complicated web of mystification—she would not allow him to see her for a long time and at first insisted on wearing a mask, and forbidding him to touch her—this ignorant, uneducated and unscrupulous woman found the sensitive and high-minded, but rather weak novelist entirely in her power. He broke off his engagement and after the birth of a child, in 1873, he married Laura Rümelin. For many years after this there was little but wretchedness in Sacher-Masoch's life. Two children were born, and it is to the credit of the wife that she had agreed to take into the house a daughter her husband had had at an earlier period by an actress. But any love she may have felt for her husband soon disappeared; she subjected him to every kind of insult and humiliation; she separated him from his friends; she compelled him to prostitute his powers to obtain money; she lived openly with her lover, an utterly unscrupulous man, but clever journalist called Rosenthal, later known as "Jacques St. Ceré"; she insisted on coming to nurse the father's favorite child, but left him to die alone on a message from her lover. At last Sacher-Masoch definitely separated from her; he had now become attached to a gentle, highly accomplished and entirely normal woman called Hulda Meister, who cared for him with almost maternal devotion and bravely resolved to share her life with him. In 1833 they settled in Lindheim, a village in Germany near the Tounus, a spot to which the novelist seems to have been attached because in the grounds of his little estate was a haunted and ruined tower associated with a tragic mediæval episode. Here, after many legal delays, Sacher-Masoch was able to render his union with Hulda Meister legitimate; here two children were in due course born, and here the novelist spent the remaining years of

his life in comparative peace, though to the last threatening and abusive letters were sent from time to time by the divorced wife. At first, treated with suspicion by the peasants, Sacher-Masoch gradually acquired great influence over them; he became a kind of Tolstoy in the rural life around him, the friend and confident of all the villagers (something of Tolstoy's communism is also, it is evident, to be seen in books like "*The New Job*," which he wrote at this time), while the theatrical performances which he inaugurated, and in which his wife took an active part, spread the fame of the household in many neighboring villages. Meanwhile his health began to break up; a visit to Nauheim in 1894 was of no benefit, and he died March 9, 1895.

(*To be continued.*)

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EDITORIAL.

[All Unsigned Editorials are written by the Editor.]

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THE CHICAGO DRAINAGE CANAL.—Anent this subject the consolidated *New York and Philadelphia Medical Journal* says: In the opinion of the Chicago Department of Health, proceedings in the suit of the State of Missouri and the city of St. Louis for a Federal injunction against the further operation and development of the main drainage channel of the Chicago sanitary district, on the ground that such operation and development are or will be injurious to the water supply of St. Louis, have reached a stage which justifies the publication of the results of the chemical and bacteriological examinations of the streams between Lake Michigan and the Mississippi River, made for the purpose of determining their sanitary condition and quality both before and after the opening of the drainage canal. This publication is further justified, in the department's opinion,

by the fact that certain medical journals published in Illinois have said that "from a sanitary standpoint the canal, after an expenditure of forty to fifty million dollars, is a failure, a blunder;" that "the city of Chicago continues to be a centre for dissemination of typhoid bacilli to all parts in the surrounding country;" that "in the history of the present drainage canal, from its inception to its completion, the bacteriologist and scientific sanitarian is conspicuous by his absence;" that "the system was undertaken without the approval of eminent sanitarians;" and that "a stupendous sanitary blunder has been made." These statements, the department thinks, are calculated to "prejudice the decision of the suit." Hence its efforts to counteract their influence by the publication of a volume entitled, *Report of Streams Examination, Sanitary District of Chicago*.

Disregarding the elaborate chemical investigations set forth in the report, we find this important statement: "The facts indicate that the colon bacteria, which are present in such large numbers in Chicago sewage—undoubtedly in much larger numbers than typhoid bacilli—disappear almost completely in less than 150 miles' flow. Since all investigators are agreed that the colon bacillus is more hardy than its relative, the typhoid bacillus, and can live in water for a longer time, there is every reason for supposing that the latter microbe dies out with at least the same rapidity." We have before now commented upon examinations of the water in the channels through which the Chicago sewage passes, and we are still inclined to the opinion that its contamination is rendered innocuous before St. Louis is reached. The matter, however, is one that courts much further investigation.

THE CONSOLIDATION of the *New York Medical Journal* and the *Philadelphia Medical Journal*.—Drs. Frank P. Foster and Kenneth W. Millican, of the *New York Medical* and the *Philadelphia Medical Journals*, respectively announce their consolidation into one journal. "In bringing about the consolidation the publishers have not been actuated by the desire alone to enlarge the subscription list,

but by the higher purpose of combining and furnishing to an enlarged circle of readers all the features thought to be of special value in the two journals."

This is a strong consolidation. The blending into a great being of the psycho-neural force of two giants in medical literature. The result will appear as a medical journalistic athlete. Both cities are to be fittingly represented in the columns of the new journals consolidated, as well as the whole profession.

HOW THEY MAKE UP THE HEALTH BOARD IN PHILADELPHIA.—The mayor of Philadelphia has appointed as director of the new Department of Public Health and Charities Dr. Edward Martin, professor of clinical surgery in the University of Pennsylvania, Dr. Martin has appointed as chief of the bureau of health Dr. Alex. C. Abbott, director of the public health laboratory of the city. He has also invited to serve as a board of consultants to the department, Drs. S. Weir Mitchell, J. William White, John H. Musser, Chas. B. Penrose, Hobart A. Hare and J. M. Anders.

These are all eminent men in medicine. They do not belong to the partisan class of ward politicians.

PSYCHIC EXTREMES.—A chambermaid in an American city refuses to make the bed of the colored educator, Booker Washington, and is deluged with gifts of money from gushing southern women.

A colored prize orator of Yale becomes an object of special interest on the part of President Roosevelt's sister, who inquires about his finances and plans. Miss Lucy Giles of Newport gives him a valuable diamond pin and an anonymous well wisher sends him one hundred and fifty dollars.

Level-headed people will neither make fools of likely negroes nor of negro antipathists. Let us maintain the stability of our neurones concerning the negro (his rights and his wrongs), and remember the gushing neurotic instability of utterance concerning our colored brethren that pre-

ceded the firing on the "Star of the West" and the disastrous deadly sequences of secession and the harmful political elevation of the negro beyond his capacity to sustain in reconstruction days.

The negro needs guidance more than gush. He is on the lower rungs of the ladder, climbing from recent ancestral barbarism toward the higher civilization. Let him climb as the white man has climbed and grow stronger for the struggle.

PSYCHIATRY IN THE ARMY AND NAVY.—The soldier and the seaman are liable to insanity. The strain of military life and exposure and absence from home tend to its development. Governments are particular to secure able-bodied recruits and care for them surgically.

They should bestow equal care in guarding against the development of mental distress in the soldier and sailor.

The army has a good surgical staff, but the Government has made no provision for Alienists and Neurologists therein, or for hospitals for the insane in the new possessions. The insane now have but one government hospital, and that at Washington, D. C.

The insane soldier in the new possessions should have skilled care on the spot. His malady should be detected and treated early, and the chances of recovery improved. Early skilled hospital treatment means recovery in most recent cases. Delayed care by transportation across the sea imperils recovery.

SOME RECENT MEASURES OF IMPROVEMENT in the care of the insane of the State of New York by the Lunacy Commission are as follows:

1. The Pathological Institute has been reorganized and more than sixty of the medical men connected with the staffs of the fourteen State hospitals have been instructed during the past winter at the Institute on Ward's Island in the recent development of psychiatry along clinical, pathological, psychological and clinical lines. The legislative appropriation is now \$25,000 annually.

2. The hospitals have been opened to medical internes in the same manner as general hospitals. Last year



sixteen clinical assistants entered the service in this way, and this year the number is nearer thirty.

3. The legislature recently passed the Lunacy Commission's bill for the appointment of a Medical Inspector to insure a more thorough inspection of the thirty-nine institutions under its charge, viz; 23 private retreats, two criminal asylums and 14 State hospitals for the insane. Such inspection, especially of the private asylums, in which there are about 1000 patients, has never been adequate.

4. To remedy overcrowding, the Lunacy Commission proposes to construct a new hospital in the territory north of Albany and Troy, on the Colony system—a scheme similar to that of the Craig Colony for epileptics, will be carried out. The site will be selected and plans made this year. This Colony, for 1500 to 2000 patients, should be ready inside of three years.

5. Three tuberculosis hospitals, each with a hundred beds, will be constructed this summer at a cost of \$90,000 at Middleton, Utica and Binghamton, on the grounds of the State hospitals located there; and the plans made by Dr. Peterson and the State Architect, embody the main features of such hospitals described in the King Edward prize essays. In the meantime, tent life for the tuberculous insane has been in vogue at the Manhattan Hospital, East (under Dr. MacDonald) for two or three years, and for a shorter time at Binghamton and other of the State hospitals.

6. The Country colony, for a few of the working classes of the insane, as an offshoot of the Utica State hospital, has been enlarged. A similar colony has been established at the Willard State hospital and two are in existence at the State hospitals at Binghamton and Poughkeepsie.

7. A new departure this year is the creation of a summer camp for between 40 and 60 insane on the lake shore, about 15 miles from the Rochester State hospital, which is now in operation to the great delight of both patients and attendants.

8. The feature of nurses' homes having been found

so useful at some of the hospitals, two additional ones will be put up this summer, one at King's Park State hospital, Long Island, for 300 nurses, and one at the Gowanda State hospital, for 100.

9. Six or seven residences for superintendents and separate houses for the medical staffs will be put up this season at as many of the State hospitals, thus removing the officials from the central main buildings and utilizing the vacated space for patients.

10. A bill providing for emergency commitments, recommended by the Lunacy Commission, was passed by the legislature at the last session. Copies of this law have been sent to all the examiners in lunacy of the State. It is believed that this will mean great good to the insane and prevent the all too frequent incarceration of urgent cases in jails and station houses.

11. The improved ration brought about during the past six or eight months, though entailing an additional cost to the State of a hundred thousand dollars per year or more, has added greatly to the comfort of the patients and to the satisfaction of the medical officials and various visiting boards.

12. A strong effort is being made by the Lunacy Commission to increase the number of deportations of alien insane and through the efforts of New York State, the federal government passed a law making the limit three years instead of one; *i. e.*, an immigrant becoming insane within three years after landing in the United States, may be returned to his own country.

13. The movement for the establishment of reception hospitals for acute curable cases in the large cities has gained strength. While the bill for the psychopathic hospital for New York City, which was to be the first of several such reception hospitals, failed to pass this year, it is believed that success will attend the Commission's efforts during the coming session.

SINCE METHODS OF MODERN WARFARE are now so changed that discretion is especially the better part of

valor, so also is the proper psychical as well as physical care of the soldier the better part of strategy. As in civil life, to be weak in brain and nerve is to be a failure, so in military life, not to be strong in brain and nerve force is to be inefficient and in great crises of imperative action, to fail. The stronger and better the brain, as well as brawn behind the gun, the better and more glorious will be the deeds of the soldier.

CASES OF HYSTERICAL AMNESIA in women sometimes come under the attention of newspaper reporters, who give them pages of elaborate description and the public their guesses as to the mysterious mental states of these overwrought, emotional, neurotic, uncertain sensation-loving creatures.

A newspaper diagnosis of an abstruse psychiatric subject like amnesia hysterica is interesting to the psychiatrist always. The newspaper man stumbles along in his diagnostic endeavors through unknown psychiatric mazes without the usual data of alienism to guide him, with often a limited number of normal psychic neurones to work with and an unlimited area of self-esteem center in his cortex to overwork his psychic neurones and get them into trouble.

St. Louis recently had an hysterical sensation of this kind remarkably well written up, for the reporters were St. Louis men who are noted for their accuracy, and they were helped out by an extremely good medical man in the case of Miss Blanche Williams, as she called herself, but whose real name is Sarah Doe.

This girl of 19 years of age, intelligent and refined and healthy in appearance, was found by the police one evening walking the streets in a dazed sort of way, acting strangely, talking of suicide and unable to tell where she came from. She knows she has a mother, brother and two sisters, but only recalls what she thinks is the name of her father; but she misnames him.

"The situation of the Blanche Williams case assumes a phase that is puzzling in one of its features to Dr. John Young Brown of the City Hospital—what disposition is to be made of the girl?"

So far no one has called to see the memoryless maiden who could positively say who she is.

Many have seen and conversed with the girl, but all failed to connect Blanche Williams to a clue that could be followed to her benefit.

Unable herself to tell where she came from, and the return of her memory in that important regard seeming a distant possibility, has combined to liken her case to that of Ada Barker, who was eventually forwarded to the insane asylum because she could give no information about herself that was productive of results favorable to her.

Ada Barker claimed to have been a nurse in Bellevue Hospital, New York, and to have a brother reporting for the *New York Sun*. She also said her father was a real estate man, with offices in Brooklyn, and a home on Long Island.

Miss Elizabeth Rowan of the City Hospital force wrote to all these people and others, but never received any replies. Then it became impossible to keep Ada Barker in the observation ward, hence she was transferred to the asylum, where she has remained to this day. The newspapers gave columns to her story at the time, but all to no avail.

It transpired that she had once been confined in the North Texas Insane Asylum, at Dallas, so it may be she had hallucinations as to the relatives she claimed.

With Blanche Williams the case has been reversed.

On topics she is rational and remembers from day to day the doctors, nurses and attaches as they pass before her.

She addresses all the reporters by name as they appear each day and in every way shows that her mind is sound on all things but those connected with her home.

She tells the story of a long train ride through high water and over a bridge in the darkness. She also recalls seeing floating wreckage and dismantled houses in the water. The "Collinsville Road" she uttered in her sleep suggested nothing to her when awake, and she says she did not live in a town of that name.



THE HENRY HEIL CHEMICAL COMPANY, whose advertisement appears in our pages, is one of the reliable firms of St. Louis. Their representations can be implicitly accepted by all inclined to deal with them, and their specialties are worthy of professional confidence.

The Borobenphene of this company has proven thoroughly satisfactory, both as to results and moderate price.

THE DIAGNOSTIC SKILL OF THE ALIENIST.—It is a common misconception in the popular medical mind that an Alienist is a man who deals diagnostically only with mind diseases, whereas his field is the diseased man of mind deranged. He has therefore to search out the real underlying disease despite the often misleading impressions of the morbid mind of his patient. Real from delusional symptomatology must be differentiated. The phantom tumor of the imagination in the insane man's stomach, for instance, is to be diagnosticated out of existence. The tactus eruditus and physiologic chemistry must disprove it. And so diagnostic acumen is sharpened. The aid of the patient is not only of little value, but it is an obstacle because of delusion of his mind in regard to his physical condition. Imaginary reptiles or holes in sound organs, floating kidneys and misplaced hearts are common delusions of the insane. Diagnostic aid from the so-called rational symptoms obtained from interrogating the insane, are often exceedingly irrational and misleading to the doctor. If you listen to the lunatic as to his diseases of the body, without cautiously weighing and distrusting his statements, he may give you a delusive picture of himself morbid, which does not tally with the facts.

The mixture or delusion with the patient's physical condition and feelings makes the use of physical sign symptoms and evidences in the diagnosis of diseases among the insane preeminently essential to correct conclusion. The stethoscope, the ophthalmoscope, the endoscope of every sort; the re-agents of chemistry and the stains and microscope of bacteriology have special value to the alienist clinician.

It is thus that the necessity for frequent diagnosis of disease in the insane, without as well as within the cranial cavity, but especially without the brain case, becomes a source of development of expert diagnostic skill in all diseases, not alone the diseases of brain directly concerned in the display of insanity. To the general practitioner of wide clinical experience, the insane hospital is an unequalled clinical opportunity for the development of further expertness in general as well as special diagnosis.

The best practitioners of medicine are those who have opportunity to add an insane hospital experience to that of general hospital internship. It is well to know abnormal and normal psychic symptomatology in their clinical aspects, when we go out to detect and combat the morbid enemies of mankind as they appear in the diseases that affect humanity. An insane and a general hospital are both serviceable to the seeker after the highest diagnostic and therapeutic skill.

BEVERLY FARM PRIVATE HOME AND SCHOOL, for nervous and backward children, Godfrey, Madison county, Illinois, W. H. C. Smith, M. D., superintendent, had an interesting corner stone laying of a new school and gymnasium on July 18th. The capacity of this prosperous and efficient school is also increased eighteen beds. Dr. Smith is doing an excellent work along rational lines of development of the imbecile and backward-minded children. His assiduous personal care and enthusiasm in his work and the salutary environments of his home meet our approbation.

HIGH SURGICAL RECOGNITION OF THE ALIENIST AND NEUROLOGIST.—In this issue of the *Alienist and Neurologist* appears an interesting innovation and an unique method of procedure for cerebral ventricle puncture by our friend and the world's eminent surgeon, Nicholas Senn.

The thousands of readers of the *Alienist and Neurologist*, who see in their hospitals and private practices so many of the unfortunates who require the procedure devised by Professor Senn and described in our pages, will

applaud the selection of his medium of communication and many will approve the improved method of surgical procedure. The surgeon-general of Illinois is entitled to thanks for thus promptly giving the profession his advanced method and his discernment in selecting so good and appropriate a medium for disseminating his peculiar views on this important surgical procedure.

This operation falls legitimately within the lines of surgical psychiatry and hence is especially worthy of space in the pages of the *Alienist and Neurologist*.

AS IMITATION IS THE SINCEREST FLATTERY the Mariana Wine people are out in a circular cautioning the profession against counterfeit substitutes, along with the Antikamnia people and the Fairchilds,' who have lately won suits against unlawful "just as good" imitations. We believe in our friends, the proprietary people, who give us good and elegantly dispensable goods, being protected in their rights and interests, for such protection subserves the interests the of profession.

THE INTERNATIONAL MEDICAL CONGRESS.—The best that can be said about our Spanish colleagues is, that they meant well. Their utter inability to cope with the situation was, to say the least of it, trying, though at times amusing. The courtesy which they displayed when faced by a raging mob of their French, German and English confrères, was in itself a lesson, and the calmness with which they rolled and smoked their cigarettes, in the presence of an exasperated and abusive crowd of delegates, was inimitable. It was magnificent, but it was not business. Still, it was a useful experience, an experience which we wish some of our own countrymen would profit by. We hear much of the dignity of the profession, but we are bound to confess that at Madrid, except on the part of our hosts, it was, in general, conspicuous by its absence.

It was certainly an original idea to hold the sectional meetings in an art gallery. What a relief it was to let the eye wander over the many masterpieces with which the

walls were adorned, while listening to the rival claims of two "congressists" reading papers in different tongues at one and the same time.

As no one ever knew what the program was going to be, or where the different events were going to take place, there was a certain element of sport in the proceedings, which made up to some extent for lack of method.—*Editorial, Edinburg Medical Journal*, July '03.

DR. A. B. RICHARDSON IS DEAD.—Dr. A. B. Richardson, President-elect of the American Medico-Psychological Association, died at the Government Hospital for the Insane, Washington, on the night of Saturday, June 27th. Death came to him suddenly; he fell while in the harness of duty. It is announced that he had been busily engaged during the day, and in the evening was visiting at the house of a friend when the summons came. A severe attack of sneezing occurred, which was succeeded by dizziness, of which he made complaint. He was carried to a couch, and it was discovered that a condition of hemiplegia was present. Within two hours death occurred. He was a great and good man in the ranks of alienism, a diligent, conscientious worker, who has labored throughout his professional life in the interests of the insane and for the advancement of psychiatry. His death is a blow to his family and friends and colleagues of the Government Hospital for the Insane, his patients there and to his professional associates. He was interred in Green Lawn cemetery, Columbus, Ohio, on the first of July.

A NEW REFLEXOGRAPH has been devised by Dr. Bradley of this city, which will prove serviceable in the making up of accurate neurological records.

IS THE BLOOD OF THE KING SNAKE ANTIDOTAL TO OTHER SNAKE POISON?—*McClure's Magazine* for July, discussing the king snake's prowess, says: "The most relentless exterminator of reptiles is a member of the snake family itself—the beautiful, lithe, yellow and black snake, the friend of man and the avowed enemy of anything that



creeps or crawls, regardless of size or poison fang. A native of our own South, the king snake is between five and eight feet long, and no thicker around than a man's thumb. Built in every muscle and bone for speed and tremendous constricting power, there is not another snake on earth that can withstand his assault. He is immune to the poison of the cobra and of the rattler alike, and the strength of a thirty-foot python has no terrors for him. Within five minutes from the opening of the fight, the king snake could kill the biggest python that ever lived."

Here is a suggestion for the laboratory of experimental toxicology. Toxicological therapeutists may find in the serum of the king snake an antidote for the sting of the cobra, and the rattler and other venomous reptiles.

IN THE JULY ISSUE of the *Medical Index-Lancet* are the details of an interesting case of malingering, reported by Doctors Punton and Walker. It is an important case from a medico-legal standpoint to doctors and lawyers.

IN MEMORIUM.—DR. ISAAC NEWTON LOVE.—DOCTOR GEO. F. BUTLER'S TRIBUTE TO HIS MEMORY.—The veil that medical science cannot lift has again fallen between the loved—the living and the dead.

In the very June of life Death touched with shocking suddenness the great loving heart of Dr. I. N. Love. His lips from which but a moment before, wisdom, wit and kindly humor burst into blossom are forever closed; his busy brain is still; his sympathetic, generous heart is wrapped in shadow; and from his hand has dropped the facile pen.

He had accompanied a patient to France and was returning by the way of England on the Cunard liner, *Aurania*. The voyage had been unusually pleasant. The passengers had appointed a committee of five to prepare resolutions of commendation to be presented to the officers and crew. By unanimous consent Dr. Love was chosen chairman of the committee, and to make the presentation speech. In the midst of his admiring fellow-passengers, as

the great ship was entering New York harbor on Thursday morning June 18th—in view of home—of the land his ample nature had enriched—he was stricken with apoplexy, and almost instantly his eloquent lips were sealed in death.

My loyal friend had reached his journey's end, although he had but just passed the "middle post of life."

He was but 53 years of age and had been an honored member of the profession of medicine for thirty-one years. To the medical journals of the world I leave the task of relating the remarkable and honorable history of his medical career. I choose to speak of him as a man—of the hospitable, generous, sincere friend, yet I have no words intense enough to express my admiration for him, or with heart enough to tell my grief.

The realm of death has never been enriched by a man more sympathetic, more loving, or more charitable.

He possessed the genius of friendship and of kindness, and spanned with loving sympathy the abyss that separates the weak from the strong. He looked through pitying eyes upon the sorrows and sufferings of mankind, knowing only too well the scorching grief that stifles many a heart; the shadows that fall on many a life, and his great responsive soul was touched by the pathos of human experience.

Fate had more than once proffered him the cup of bitterness, but he drank it with a smile, and bravely. No braver, more cheerful or more hopeful man ever lived. He was the optimist of optimists, always looking into a cloudless to-morrow and borrowing from it sunshine for today.

The cheerfulness of Dr. Love was contagious. He filled the lives of men and women with gladness and with hope.

Successful? Yes! For he had achieved fame in the grandest, noblest work a man can do, and earned the respect and love of his colleagues and his patients. Without an abundance of money, yet he enriched the world with the wealth of his brain and heart.

He was generous beyond his means; the personification of fidelity; friendly, loving his friends and his friends' friends; just; enthusiastic; and a worker of unusual energy. His judgment was sound, and he possessed a rare intuition that enabled him to judge of the true worth of men and women regardless of wealth, position and public opinion.

Probably no man in the medical profession was more versatile with his pen. His contributions to medicine and literature were unique and learned. His style was peculiarly his own, his writings having a vim and go that attracted universal attention.

In character he was an unusual combination of the "Bohemian," the scientist, and the journalist.

He was blessed to a rare degree with the gifts of humor, great personal magnetism, and sociability. His wit was keen and quick, but invariably kind, for he had the grace to cover the thorns with the soft petals of the flower. The victims of his repartee therefore, were made admirers, rather than enemies.

His fund of anecdote was inexhaustible, so that with his ready wit, originality, and fluent speech, he was much sought after at social gatherings.

Dr. Love enjoyed life. He loved the friendship of his friends; he delighted in generous deeds and the reasonable gratification of the senses. He was neither an "insane ascetic nor a fool of pleasure, but walked the golden path along the strip of verdure that lies between the deserts of extremes."

So Love has gone. My valued friend—the friend who understood me best; the man who had the courage to leave the beaten paths and wander wherever fancy, right and kindness prompted; the man whose heart went out to all the wretched world, and yet whose life was full of sunshine and whose hands were ever eager to help the fallen and forlorn; the man who believed that there were no outcasts but were victims of circumstances and conditions; the man possessed of a charity so wide that beyond its circumference no one could wander, has passed into that myste-

rious realm where fidelity is loved, and courage honored.

"A heart breaks, a man dies, a leaf falls in the forest, a babe is born, and the great world sweeps on," but as we pass down the great highway of life we turn with outstretched hands in loving benediction, with a broader charity, and a kindlier heart, remembering the generous, helpful, cheerful, loving life of Dr. I. N. Love.

We can add nothing more forceful than the above. Dr. Love mirrored his generous, optimistic, charitable life in his own *Medical Mirror*. His life was measured by heart throbs for the welfare of his profession and his friends, "not by figures on a dial." He was fifty-three years young, born in Barry, Illinois, where he began his education. He ended his school training at St. Louis under the tutelage of the famous surgeon, John T. Hodgen, to whom he was related. He leaves a widow, a beautiful daughter and bright and promising son, and hosts of friends to mourn his loss.

The June 1903 *Medical Mirror*, bearing his last editorial thought before he died, contained the following:

"Let us live while we live, and determine to carry joy, gladness and sunshine, a cheering light each day, to somebody. Yes, let us make the world the better and brighter for our presence. With John Finley let us believe that

"Life is a Lamp! So, oft I fancy it  
Amid the myriad metaphors by which.  
In semblance of what we see and touch,  
This mystery we image to ourselves;—  
A lamp, of gentle, thoughtful fashioning,  
As God-designed to carry flame, to bear  
Through Earth's brief dark some share of that  
true Light  
Which lighteth every man his hither way."

DR. JOHN P. BRYSON DEAD.—The sudden demise of Dr. John P. Bryson, of St. Louis, the eminent genito-urinary surgeon, makes likewise a void in the ranks of the medical profession which can not soon be filled. His death came as a great surprise to his colleagues, his friends and



his devoted wife. It was the result of over heart strain and exposure during the World's Fair dedication services. His was a noble, generous heart, a faithful soul and an accomplished hand in the line of his art.

As he made his mark on his profession, so he made an indelibly enduring impress upon those who knew him well. He had served in the Southern army and held the chair of genito-urinary surgery in Washington University. up to the time of his death His age was 55.

THE DEAD PONTIFF.—The hour of release for the "Prisoner of the Vatican" is come. His soul has taken flight to the realm of him who said "My Kingdom is not of this World." The end of a life of rare personal serenity, good will to mankind, wisdom and virtue, is reached. The Roman Pontiff leaves St. Peters with the warring Christian elements more peaceful throughout the world than for centuries past and Christendom—Catholic and Protestant—more united than ever before in endeavor to forward the peace and good will mission of the Divine Master.

Leo the XIII was a man of exceptional mental equipoise, well balanced in his judgments and prudent in his encyclicals. Capable, cautious, charitable and discreet, save in one respect, the non-recognition of the King of all Italy, his spiritual reign at the head of his church will stand favorable comparison with that of the best of his predecessors.

Though delicately constructed, his has been an enduring organism and the elements of St. Paul's trichotomy of body, soul and spirit were nicely mixed and adjusted in his marvellous mould. The span of his remarkable life exceeded two decades beyond the proverbial three score years and ten, in useful service and without unusual labor or sorrow.

The advantage of good neurone integrity, insuring longevity and good brain quality, was his. Attacked by pneumonic congestion and a pleuro-pneumonia, he endured the siege of this destructive disease with almost the strength of youth. His exceptional vigor astonished his eminent medical attendants. It is remarkable and glorious

that this advanced nonogenarian did not show his first final failure at the top, as Dean Swift did. When he fell ill, his brain was sound. His was not an old age malady, not the final morbid ending of senile dementia and decrepitude. He had shown little arteriole atheroma, only an evanescent trace of albumen and no glycosuria. A child, a youth or a man of middle age might have fallen under his malady, unless post-mortem should reveal cancer, and this would appear only as a possible complication, not as a cause of the disease that brought him down. The post-mortem only will tell this truly.

The delirium which manifested itself was not due to organic disease of the brain, but to the exhaustion and possible toxæmia of his pulmonary affection and to the over brain tax of injudicious interviews with cardinals, prelates and members of his family, too kindly conceded by his medical attendants or insisted on by his Holiness, at a time when he should have been robbed of no reserve vitality, for all was needed for fighting his life-menacing destructive malady.

It was a grand fight; this struggle of the aged Pontiff against the assaults of his disease. Pity he could not have been given a fair field, untrammelled by needless intrusion of brain-breaking and energy-destroying visits. But the psychological aspect of undue brain and mind strain is often thus overlooked, when the once vigorous-minded fall sick of other than mental disease, and Nature, in extremis, must contend to her utmost against tendencies to dissolution. The Pope should have been at home to no one but his medical and other attendants from the time it was learned that he was seized with a possibly mortal malady, requiring all his reserve nerve center strength to combat.

In a condition of remarkable nerve center vigor and general organic integrity, he had reached his ninety-fourth year and might have completed a century but for the unconscious conspiracy of indiscreet friendship, solicitude, formality precedent, forcing upon his anaemically and perhaps toxæmically enfeebled brain too many exhausting interviews. Thus did kindness help to kill him at a hopeful period of reaction in his malady. His pulse and tempera-

ture were but little abnormal and a paracentesis plurae had relieved the fluid accumulation that oppressed his lung and heart. At this favorable epoch, within two days, the associated dispatches conveyed the depressing intelligence that too many visitors brought on renewed prostration. His pulse went high, his respiration increased, his temperature was exalted and his great mind failed. With rest, it rallied, and became clear and again it failed and coma closed the scene and carried his spirit from the world, just after he had, in transient lucid interval, bestowed his last Pontifical blessing on a waiting, importunate Cardinal.

When a Pope is dying every Cardinal and every Monsignor wishes to show his devotion to the Pontiff, and makes every effort to see his Holiness. During the two memorable days of July 11th and 12th, when evidence of a change for the better appeared, eighteen Cardinals and fifteen relatives, including children between eight and nine years old, visited him. "A number also of Monsignors of the Papal Court saw the Pontiff at this time, although their visits were not publicly announced, making a total of sixty or seventy who were received by his Holiness in two days." The Pope, said the associated dispatches, as was his wont, spoke a few words to each.

What an ordeal for such an invalid? All these visits were repeated and prolonged till the Pope declared he would not receive any more. Of course the pleurisy made fresh progress and developed another crisis, demanding another puncture of his side.

After this the Pope became very weak. His exhausted brain after this strain showed delirium. He saw phantoms flit about the room and rattle the furniture. And thus his once strong brain, that might have throbbed out a century in worthy action, finally began to fail, foretelling the ending of mortality.

On his memorial tablet may be truthfully inscribed:  
*Vita cogitationis, caritatis, veritatis, puritatis et sapientiae.*

DEATH OF DR. ORPHEUS EVERTS.—"The Cincinnati Sanitarium announces with profound sorrow to its patrons

and the medical profession the death of its medical superintendent, Dr. Orpheus Everts, who passed away on June 19th, after a lingering illness, chiefly manifested by a gradual exhaustion of the centers of organic life.

He had been at the head of the medical staff for twenty-four years, and goes hence from a long life of usefulness, crowned with the love and esteem of all who knew him."

Dr. Everts was a practical alienist clinician of distinguished ability, an acute and philosophic observer in psychiatry and a man of wide learning. He had been called in matters psychologic "the venerable philosopher of College Hill." In all the relations of life, scientific, personal and professional, Dr. Orpheus Everts was an estimable man.

NEUROLOGICAL ACCURACY IN DIAGNOSIS.—"The investigations and discoveries in neurology during the past ten years have made the diagnosis of nervous diseases less difficult and more exact, so that it is now possible to trace any symptom presented by a patient to some disturbance of function in a definite nerve center or nerve tract. And as the knowledge of these centers and tracts has grown, as their location and action have been made clear, the meaning of symptoms previously perplexing has become plain.

"Accuracy of diagnosis has led in turn to precision in treatment, and especially to the application of surgical measures for the relief of diseases formerly considered incurable. There are few departments of medicine in which more remarkable progress has been made than in neurology, and there is none that lies so openly on the borderland between medicine and surgery. The surgical success in the treatment of nervous affections are among the most brilliant of recent achievements in this domain."  
—Dr. M. Allan Starr, *Preface to Work on Organic Diseases*.

THE PSYCHOPATHIC DEPARTMENT OF THE GENERAL HOSPITAL.—Dr. Moyer's journal—*Medicine*, speaks thus aptly in editorial page on this subject: These pages



have frequently commented upon the desirability of a special department in general hospitals for the treatment of the insane, drug habit, and the psychic complications of chronic disease. The view that the insane were separated from the other sick by a disease of the soul or an infirmity of will is a relic of the middle ages, yet it finds its echo in our modern hospital management. There is such a variety of mental diseases, running all the way from an acute psychosis, complicating various acute diseases, to the ordinary paranoia, that it has been difficult to know just how to deal with this class of cases. That the construction and organization of psychopathic hospitals must of necessity be different from that of the general hospital goes without saying. There is the element of detention, the legal complications, as well as the radically different treatment required. A recognition of the frequency of psychic disturbance as a complication of general disorders, will unquestionably lead to the establishment of departments in all our large general hospitals for the treatment of mental cases.

The Albany Hospital is the leader in this movement, having established a pavilion for the treatment of mental cases, the first patient being received February 8, 1902. A report for the past year by J. M. Mosher (*Albany Medical Annals*, April, 1903) shows that 174 patients have been admitted. Of these four were sent directly from the outpatient department, and 12 were transferred from other departments of the hospital. Eight of these were surgical cases, one eye case, one obstetrical, and two medical. Forty-one patients were transferred to the State Hospital for the insane; of these 20 were sent in one week or less, 5 during the second week, 8 between two weeks and one month, 4 during the second month, and 4 between two and four months.

In discussing the work of the department, which is known in the hospital as Pavillion F, the director says that the establishment of this department was largely an experiment. The department was established to meet the needs of those cases which could not be cared for at home, and who had heretofore been sent to the jail and

committed to institutions for the insane, many of the cases being recognized as transient disturbances.

During the year several important questions have been solved. It has been demonstrated that mental patients of all classes may be received, and that only a small minority resent confinement. Of the patients who were dissatisfied with the surroundings, several returned to their homes benefitted by their short stay, and others finally needed the intervention of the law and a formal declaration of insanity. The number of malcontents is not greater than in other departments of the hospital. The length of time patients should remain is still undetermined. The well developed cases of mania and melancholia are early transferred to the State hospital; for these the pavilion has offered a temporary refuge where proper treatment can be given until they are committed to the state hospital. The rule has been that any case which would probably be cured with the means at hand was treated. Women nurses in the male wards have been a satisfactory innovation in the treatment of the mental cases.

CONGENITAL TABES AND DEXTROCARDIA.—Hr. G. Flatau, at the June 8th, 1903, meeting of the Berliner Gesellschaft fuer Psychiatrie und Nervenkrankheiten, exhibited a patient with tabes and dextrocardia. No other organs were misplaced. Flatau regards this rare combination as supporting the view of hereditary tabes. The patient was a seven months' child. Another tabetic patient showed convergent strabismus, which was especially manifest when the mouth opened. Bernhardt and Schuster reported a similar case of ptosis occurring when the mouth opened.

GRANDIOISE DELIRIUM AMONG TRUST MAGNATES AND FINANCIERS.—When we consider the gigantic cosmopolitan schemes and universal conquest dreams of some of our modern "Captains of Industry" and "Napoleons of Finance," some of these *bonhomie* gentlemen of exalted ideas must be approaching perilously near enough to that shadowy line of separation between sanity and insanity of bus-

iness, to excite the suspicion of possible impending general paresis.

General paralysis of the insane, is an alluring, seductive, psychically destructive and financially disastrous form of mental trouble, which attacks the ambitious and overwrought brains of strenuous business men, especially in the prime of life.

In its prodromal stages, great conceptions and exalted schemes may originate in the mind, plausible enough to deceive the commercial and financial elect, if taken on the credence of a great name that has become well accredited in its best mental estate, in high business circles. The grand illusory conceptions of precursory paresis may appear rational enough to deceive the cautious and yet be paretically inspired. A tinge of over-hopeful insanity exalts the psychic conceptions and cuts these conceptions loose from the cautionary restraints of psychic inhibition, which rule in the best balanced minds.

Among the million salaried and trillionaire trust combines, while no place exists for *foile du doute*, we may expect to find the king and potentate emulating paretic, and not seek in vain, if we scrutinize closely and diagnosticate with deliberate caution—for he is there among them—he is the man who sees rose colors, rainbows and pots of gold in every undertaking and who never sees or admits an obstacle in his way.

ECHOES FROM THE MADRID INTERNATIONAL CONGRESS.—In an article in *American Medicine*, describing his experience at the Congress, Dr. Nicholas Senn says among other things:

The confusion of languages that prevailed throughout the entire congress found its way into the general program I will give only a few instances of title mutilation as it appeared in the general program for the authors who presented papers in English and German.

My friend, Dr. C. H. Hughes, of St. Louis, was announced to read a paper in the Neurological Section on "Eew Vievos of the Virile Reffiese." I wonder what Lind-

sey Steven, of Glasgow, thought when he saw printed under his name "A Case of Ocute Lympatic Leukalmia urt Mide vous Lympatic Medules in the Skin." Dr. R. H. Harvey Reed, of de Rock Springo Hugo, was expected to discuss "Metral d'implantation duto the Rectum." I was registered in the Military Section, and drew a long breath when called upon to present my paper on "The First dirping en the Battlefired."

The German language fared no better than the English in the program.

I am sure the patriotic feelings of Korbitz, of Berlin, received a shock when he saw his name coupled with the title of his paper on "Das Schmelzen des leichtflussigen Forzellans una cin hener electrisher ofen." I do not know the fate of the paper by Grunmach, of Berlin, in the Section of Internal Medicine, but the title as printed was certainly a strange one—"Uibu dis Fortschritte in des Diagnostik dirili dis X Strahlen."

\* It would certainly not be in good taste to criticise too severely the orthography of the English and German language in a product of the Spanish press, and I have quoted these illustrations only as a hint to the committee on program for the next meeting of the Congress, to which I desire to add the well-meant suggestion to consult some one who has a fair knowledge of the two languages, which are too widespread and important to be ignored, before they deliver the program to the printer, and then engage the services of a competent proof-reader.

ALLEGED NEW DISCOVERIES FORTY-FOUR YEARS OLD.—Dr. Ford of St. Louis Claims Honors Just Given to Dr. Stocklasa of Berlin.—Honors now being showered upon Dr. Julius Stocklasa, an eminent German chemist, for alleged discoveries regarding alcohol in the human system as a source of life and energy are said to belong rightly to Dr. W. Hutson Ford of 4219 Olive Street, St. Louis.

Dr. Ford published in 1859, while a resident of Charleston, S. C., an extended monograph entitled "Normal Presence of Alcohol in the Blood," which he had read



before an important medical body. A copy of the first edition of this monograph, which Dr. Ford has preserved for 44 years, shows that the author set forth practically the same views and discoveries, years before the American civil war, which are now attributed to Dr. Stocklasa, whose recent lectures delivered in Berlin contained the discussions on alcohol.

Dr. Ford, at the age of 25 years, after several years of investigation and experiment, reached the conclusion that fermentation going on in all the organs of the body, particularly the liver, muscles, lungs and pancreas, produces alcohol, which is the source of life and warmth. Dr. Stocklasa is now said to be making experiments along the same line.

Dr. Ford's monograph of 1859 was followed by other publications on the same topic in 1872 and 1876 in the *New York Medical Journal*, and more extendedly in a paper read before the International Congress of Physicians, which met in Washington in 1877. This paper was printed in the *Alienist and Neurologist*, published in St. Louis.

"Dr. Ford has always taught, during these 44 years," states one of his medical friends, "that the saccharine substances found in all animals, both carnivorous and herbivorous, are transformed in the interior economy into alcohol, which is burned, and that this combustion is a prime source of animal heat. Dr. Ford's views, as fully set forth in his publications, have been widely circulated and have met with open acceptance from well known physiologists in America, and they have been mentioned often by authors and journalists in Europe.

"The subject of alcohol in the body is of very great importance, not only in a scientific and medical sense, but as bearing upon the use of alcohol in some form by all mankind and the regulation of society to prevent the abuses which attend its irregular consumption.

"The entire field has been opened up by Dr. Ford's unaided labors, and he is still engaged in these inquiries. While Dr. Ford is pleased to see an awakening of interest on the subject, in what is said of Dr. Stocklasa, he is

aware that all that he has contributed in printed form is accessible to those interested in the subject."

Dr. Ford declares that he hopes to spend the rest of his life in experimenting and investigating along the line indicated.—*Post-Dispatch*, St. Louis.

Our readers will remember the paper of Dr. Ford and we know well of his work while in the faculty of the Charleston, S. C., Medical College.

A CRANK AND A CROOK.—St. Louis has, since our last issue, had two public psychological studies. The one, a woman with hysterical insane amnesia, forgetting her real name and where she came from and calling herself by another than her right name. The other is a bungling criminal egotist, with accompanying inordinate self-confidence and conceit, playing the role of an English Lord without the lawful title; a bigamist and now arraigned for murder.

These psychological freaks, common enough to the neurologist, alienist and scientific psychologist, have been sources of public wonder and comment of late, as rare specimens of humanity, but they are not, only in the newspaper mind and in the eye of the general public. Their way leads to the insane asylum, though many are diverted from the way by timely intervention of medication or the law's control.

OLD YOUNG MEN.—Apropos of the extreme old age of the lately deceased Pope, it is noteworthy that the age limit of utility in public life has not waned since the great English Premier Gladstone, the German Iron Chancellor Fuerst Bismark and General Von Moltke were gathered to their fathers.

The *Lewiston Journal* is just now calling attention to the fact that our venerable medical friend, Dr. Alonzo Garcelon, Ex-Governor of Maine, is still doing business at the old stand in the line of his profession, since his return from the American Medical Association, where he took an active part, as usual, in the work of that distinguished body, and as he did at the last meeting in California.

It is but a few days ago that we met two medical men, one of eighty-five and another of eighty-six and discussed with them another of eighty-seven, all yet engaged in the practice of medicine. On the same day we met on the street walking unaccompanied and without a cane, a lawyer and an ex-senator, aged ninety-six, not yet entirely retired from business; all in the city of St. Louis.

The three medical men and one other were lately tendered a well-merited banquet by their medical colleagues, injudiciously we think as to time, because it was done in the night time, and all but one attended. They are named respectively Wm. Johnstone, Wm. M. McPheeters, Dr. Simon Pollack and J. B. Johnson; the name of the senator is Jewett. Dr. Pollack is ninety-four years old, and attended, in good health, the Medical Congress at Moscow. Dr. Enno Sander, of this city, is another far past eighty, who daily attends to the details of a large mineral water establishment, of which he is the head and front and fountain source, taking freely of his own water of physical life.

Dr. N. S. Davis, of Chicago, is about as old as the Pope was and Dr. Didama, of Buffalo, New York, is not far from being a nonogenarian, hale and hearty.

A man past eighty-four has just contracted with us for a new office-heating plant.

Barnett Davis, a centenarian, naative of Russia, died in Williamsburgh, Borough of Brooklyn, New York, on May 30, at the age of one hundred and one years.

Remembering the fatal feasting of Parr, the Englishman who passed the century and a quarter mark in the country, but who soon died after too many toasts and too much feasting in London, in honor of his longevity, the thought occurs that banqueting the extremely aged after sunset, is a procedure not wisely promotive of further longevity. The extremely aged, near the sunset of life, expend much of their energy with the daily passing of the sun from sight.

But in these days of extreme vicious, intemperate, and business premature brain-break and consequent too-early-made-old young men, the woods are full of the old who are yet young. All the four generations from a grand-

mother of one hundred and one years were lately authentically pictured in a St. Louis city paper, with the old lady lamenting her inability to do the fine needlework of her earlier days without glasses.

GENERAL CASSIUS M. CLAY, OF KENTUCKY, ex-minister to Russia, who died of senile insanity in July, is another man whose life extended into the nineties, he having been born October 19th, 1810.

He has probably been feeble minded and senilely insane for near a decade. He was, perhaps, not of sane mind when he married the young fifteen-year-old domestic, Dora Richardson, who secured a divorce from him two years after (1896) with his consent.

When he first began to show antipathy towards his sons and unnatural suspicion of them and of other life-long friends, and unnatural attachment for the illiterate child house maid, his morbid suspicion of kindred and nearest friends, his brain was failing, unless some real cause, not yet made public, caused the mental change in his character. Unnatural aversions or attachments are features of mental aberration.

Cassius M. Clay was a fearless, square-dealing statesman, devoted to his friends and relentless in his fight against what he thought was wrong. At the risk of his life he liberated his slaves and established in slavery days, in a slave state, before the civil war, an anti-slavery paper, sustaining the courage of his convictions. His personal courage was established by hand to hand encounters, mortal to his antagonists, and on the field of battle, and by his enduring the hardships of Mexican prison life during the Mexican war. In duels he preferred the bowie knife to the pistol.

Comparing his fearless, mature manhood's life of courage and fidelity with the later eccentricities and growing fearfulness and suspicion in his old age, the change can reasonably be attributed to the abnormal involution and weakening of senile brain decadence.

It would be well if children understood the liability to



such a psychic change in extremely aged parents and acted and felt accordingly toward them, when unreasonable displays of distrust, antipathy or other evidence of psychic decline and failure appears in them. By wise action on the part of the younger members of an aged person's family, impending senile aberration might sometimes be postponed. Proper consideration and conduct toward old persons who may appear to be tarrying too long for the pecuniary good of heirs-at-law to estates of value, or who, being poor, may be burdens on their children for awhile, may save wear and tear and the mental anguish of filial ingratitude or regard that breaks the best neuronized brain.

GENERAL WOOD, M. D.—The tendency of a broad medical training to promote all around qualifications has been shown conspicuously in the efficient public military career of General Leonard Wood, whose abilities have been so justly appreciated and rewarded by President Roosevelt, as President and people appreciated those of Benjamin Rush in Washington's time.

Some exceptions to General Wood's remarkable, though meritorious advancement, have been taken. But complaint and detraction usually follow in the early wake of well-merited advance. Envy loves a shining mark, and the more conspicuous the mark, the more numerous the shafts that fly at the mark.

This judicious advancement of Gen. Wood reflects credit on the mind-training methods of medical thought and upon the wisdom and judgment of the President of the United States; for while

"A wise physician skilled our wounds to heal  
Is more than armies to the public weal"

the methods of mental discipline of the properly schooled and thoughtfully observant modern physician, availing himself of all that medical and its tributary sciences offer to the evolving mind, must make the highest style of man out of its most earnest students, for any field of action among men.

The time has gone by when a liberal medical educa-

tion may be regarded as only fitting a man for the bedside of the sick. His sphere of useful action may be in any walk of life. "The proper study of mankind is man" and the physician may make the greatest of anthropologists and medical anthropologists, with special training added, are best fitted above all others for leaders of men, in spheres where broad knowledge of men counts of value.

LOVE'S MEDICAL MIRROR STILL LIVES, though its brilliant editor is dead.—Dr. Ralcy Husted Bell is to be its new editor-in-chief, assisted by a corps of associate editors. It ought to be sustained as a monument to its talented, genial founder. The associate editors are: Dr. J. W. Wainwright, New York; Dr. Edward Wallace Lee, New York; Dr. C. H. Hughes, St. Louis; Dr. George F. Butler, Alma, Mich.; Dr. W. E. Fitch, Savannah; Dr. C. Frank Lydson, Chicago; Dr. George Brown, Atlanta; Dr. Jos. M. Matthews, Louisville.

Dr. Love's promising, energetic and courageous son, Hodgen, will look after its business interests. We wish it prosperity and every good fortune.

UNCINARIASIS as a form of neurasthenia, may be distinguished from the genuine neuratrophic systemic neurasthenia by its germ origin and by the absence of the characteristic phobias of neurasthenia. The hobo, however, who claims this disease as the cause of his laziness, can show microbes enough probably, on close inspection, though not of the specific variety.

THE UNSELFISHNESS OF PHYSICIANS.—The *Cleveland Leader* says: There is a disposition often to scoff at the code of ethics by which doctors of medicine are governed—at the rule which brands as a quack any practitioner who keeps for his own exclusive use and profit any discovery he may make of a curative agent. Yet there is no other profession which gives more for nothing to the public, and whose giving in that respect is absolutely without selfish motive.

This is illustrated by a recent statement to the effect

that the revenues of the medical profession in recent years have practically been cut in two by the hygienic reforms which have been brought about by the efforts of the doctors alone. That statement is well within the realm of truth. Medical science is constantly striving to make it possible for the human race to get along with less medical treatment. Not only are the efforts of investigators directed to the discovery of new and more effective remedies for disease, but to discover means of preventing the spread and even the inception of disease. Broadly speaking, the doctors are working continually to deprive themselves of occupation and revenue.

A MEDICAL COPERNICUS.—This honorable designation has been given to Dr. Sajous, author of "Ductless Glands."

In last month's issue, it says, will be found an abstract of the leading points in Dr. Sajous' elaborate paper on 'The Ductless Glands as Organs of the First Importance in Vital Functions, and their Relationship as Such to Disease and Therapeutics.' If the facts which the author claims to have discovered are finally established, the entire theory and practice of medicine (granting the correctness of his deductions) will have to be revised and placed on a new foundation.

THE SIGNED EDITORIAL.—At the last American Medical Editors Association Meeting, at New Orleans, Dr. T. D. Crothers in a paper discussed the shortcomings of the medical editorial page. He thinks advances in medicine are not always reflected in the editorials, and that the editorial matter is generally not of the same quality as the original articles, *i. e.*, more superficial, that they misjudge the power of discrimination of the readers; and advocates personal signatures to personal editorials. And this is the attitude of the combined *New York and Philadelphia Medical Journals*.

There is force and truth in this paper. A signed editorial is evidence of candor and of good faith. It has been from its foundation the policy of this journal to sign all editorials not written by the editor-in-chief.

WORLD'S FAIR TUBERCULOSIS CONGRESS.—To Officers and Members of the State Medical Association or Other Medical Bodies or Associations Interested in the Prevention of Tuberculosis.

Gentlemen: The Governing Council of the American Congress on Tuberculosis have authorized and directed the undersigned to invite each member of your body to co-operate with this body in a congress to be held in St. Louis in 1904, and if you will contribute a paper to be read before the body or any of its Sections, to send the title of the same to the undersigned.

We have also been instructed to ask your organization to appoint at least three delegates to represent your association at such congress, and advise us of the names and addresses of such delegates. An early reply will be appreciated.

Respectfully yours,

E. J. BARRICK, M. D., President.

Toronto, Ontario.

Samuel Bell Thomas, Secretary,

290 Broadway, New York City, July, 1903.

#### ITEMS OF CURRENT INTEREST.

Postal cards bearing the portrait of the late Professor Virchow are being sold in enormous quantities all over Germany.

Sixty cases of typhoid fever at the Leland Stanford, Jr., University, and Palo Alto, Cal., were traced to a Palo Alto dairy.

Charles Stevens, secretary of the Anti-vaccination League of Minneapolis, died from smallpox April 15.

At the annual meeting of American Medical Editors at New Orleans last April, resolutions condemning the action of Third Assistant Postmaster General Madden relative to a recent ruling made by him regulating second-class mail and adverse to medical journal interests, were passed.

American physicians and dentists are at last admitted to the same standing in Turkey as in France.

It is announced that Prof. Joseph Seegen offers a thousand dollar prize under the auspices of the Imperial



Academy of Sciences in Vienna for the best answer to the following question: "Is any part of the nitrogen of the albuminates which have undergone metabolism in the animal body eliminated either by the lungs or by the skin in a gaseous form?"

American Academy of Medicine officers for 1904: President, Dr. John B. Roberts, of Philadelphia; vice-presidents, Drs. T. B. Davis of Pittsburg, J. H. McBride of Pasadena, Cal., J. P. Searcy of Tuscaloosa, Ala., and S. A. Knopf, of New York; secretary, Dr. Charles McIntre, of Easton, Pa.; assistant secretary, Dr. A. R. Craig, of Columbia, Pa.; treasurer, Dr. E. A. Green, of Easton, Pa. The next meeting will be held at Atlantic City, N. J., June 11 to 13, 1904.

NEWS ITEMS OF INTEREST from the *Medical Review*:

Dr. Frank R. Fry, of St. Louis, has been elected president of the American Neurological Association.

Dr. Burnett, of St. Louis has been elected president of the American Association of Genito-Urinary Surgeons.

Dr. Osler has just given the details of a hitherto undescribed symptom complex, characterized by chronic cyanosis and increase of the red blood-cells, without dyspnea or much suffering..

CORRECTIONS IN DR. NAECKE'S PAPER ON "CLINICAL AND  
PATHOLOGIC CHANGES IN DEMENTIA PARALYTICA  
DURING RECENT DECADES."

Remarks of Dr. Naecke on his translated paper in this journal, page 210, volume 24, No. 2, 1903.

Unhappily, mostly by bad writing, there have entered several errors in my paper, of which I shall mention here, only the grossest.

My name is *Naecke* and not "Nacke," *Tschiesch*, *Möbius*, *de Sanctis* are to be read for "Tsasch, Mobius, de Sanebis" page 211. *Schuele* not "Schule" and *de Sanctis* have favored my hypothesis of the lowered brain in general paresis (in the majority of cases at least) *once* in their writings, not "often."

On page 212 it is to be read *on the other side* instead of "in such cases" paralysis began earlier, etc." On page 213 read, *he could have given well his lectures*, (instead of "he gave," etc). *And in the same case* instead of "on the other hand" grinding of the teeth, etc. On page 214, instead of "a change of the tone of voice\*\*\* I formerly scarcely observed" read, *I formerly and scarcely now*, etc. And "the patients become bedridden"\*\*\* and die *apparently seldom or* "as a result of marasmus, etc." At the bottom of page 214 read, *every country differs in certain details from others, nay\** instead of "indeed." On page 215 read, still less frequent, however, are errors of the senses: *the like* (instead of "but") *is the case* with states of fear and sitophobia, *whereas*, perhaps occasionally katatonic symptoms, etc. At the bottom of page 215 read, *only thirteen times* instead of "in thirteen per cent." On page 216 read, true pachymengitis hemorrhagica interna\*\*\* I now meet in only 15% instead of "75%." On page 217 read, "The view of *Paris*," instead of "Parisian observers," as this seems to be the most correct.

The reader will see that the words in italics change totally the sense of the phrase. Upon the whole the translation of Prof. Chaddock is a very good one and I feel much indebted to him. One sees, moreover, that it is always surer when the author is in the position to make correction of the proof, particularly when it is a translation.

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\*Correct words are here set in Italics.

## SELECTIONS.

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### CLINICAL NEUROLOGY.

HEROIN IN SEXUAL NEURASTHENIA.—By. Dr. Engelen. In the *Muenchener Med. Wochenschrift*, No. 36, 1902, Dr. A. Strauss, of Barmen, has published an article on heroin hydrochloride as an anaphrodisiac. He observed good results from the drug in ten cases of pollutions after the administration of powders of 1-6 grain at night, in connection with hygienic regulations, and also met with success in about 20 cases of painful chordee in gonorrhea, as well as the pain of erection following operative procedures, such as operations for phimosis. He then tried heroin in the form of suppositories in spermatorrhea. In one case prompt relief ensued and in two others heroin acted only when combined with dietetic regulations, while in the fourth the result was negative.

He points out a further indication for the use of heroin in the form of suppositories. The sedative influence of the drug upon the sexual organs proved of such remarkable service in a case in his practice, he urgently recommends further tests in this direction. The case was one of long standing functional disease of the nervous system, which the author characterizes as neurasthenia, and the result was pre-eminently satisfactory after all other usual methods had failed.

ASTEREOGNOSIS IN TABES.—G. E. Reunic, Sidney, Australia, (*Erit. Med. Jour.*, Feb. 7, 1903), reports two cases of tabes in which there was asteregnosis. To understand this symptom, it is necessary to consider what special forms of sensation are concerned in the recognition of

the shape, size and consistence of objects when they are invisible; for example, how is it that one can tell, on putting one's hand into the pocket, whether one has hold of a key, a knife, a coin, or what not? Careful examination reveals the fact that the recognition of the physical characters of objects is a judgment acquired by education, by the comparing of visual and tactile sensations, based upon a number of different sensations coordinated together.

The special sensations which are concerned in the recognition of the physical characters of objects felt with the eyes closed are as follows: (1) The spacing sense; (2) the localizing sense; (3) the muscular sense, and sense of posture; (4) pressure sense; (5) temperature sense; (6) pain sense. The retention of all of these at once is not absolutely essential for the stereognostic sense. Let us look at them a little more in detail. (1) The spacing sense. By this is meant the power of recognition of two sensory impressions made at some short distance from each other on the surface of the body limbs as two distinct sensations. We know by the use of the aesthesiometer that on some parts of the hands and fingers two points very close to one another can be differentiated as two in normal individuals; in other parts the points must be farther apart before they can be recognized as distinct. So that in the recognition of the size of an object, such as a pencil, it is necessary that the points of contact of the ends of the pencil on the hand or fingers must be recognized as two distinct sensations. (2) The localizing sense is the power of referring to the exact spot the sensation of touch or pain. If the power of differentiating two distinct sensory impressions be present, but the power of referring those sensations to their exact position on the surface of the body be lost, it is obvious that an incorrect conclusion will be drawn as to the size of the object handled. In the patient mentioned these two forms of sensation are defective, in the male the spacing sense is lost in the left hand; in the female it is lost in the left foot. (3) The next important sense is the muscular sense and the sense of posture of the extremities in space. A patient may have absolutely no tactile anesthesia,



and yet be quite unable to accurately describe the position of the fingers or toes, the hands or the feet in relation to one another or to space. If this sense be lost it is clear that the patient will be unable to state whether an object handled is 2 or 3 inches thick or only the thickness of paper. He will be unable to tell whether the object is round or square. This sense is lost in both of these patients. Involved in the true recognition of posture of the extremities is the sense of muscle tension or tone, and hence with the loss of sense of muscle tension there is loss of recognition of the different weights of objects handled. (4) Pressure sense. Apart, however, from the differentiation of the weights of objects placed in the hand, there may be a loss of sense of pressure upon the extremities. This implies an anesthesia of the deeper structure such as occurs in hysterical anesthesia, where the anesthesia appears to extend to all the structures of the limb. If this be so, astereognosis must be present. Note that this sense of pressure is much more important for the stereognostic sense than the retention of tactile sensation. The latter may be quite absent, but if the pressure seems to be retained, there will not necessarily be any astereognosis. This sense is also necessary to enable one to recognize the consistence of an object. (5) Temperature sense. The retention of the power of differentiating between heat and cold is necessary to enable one to recognize a mental object, such as a coin as distinct from a piece of wood or cardboard. And (6) the pain sense will be necessary to enable one to differentiate between a sharp edge or a blunt one, between a prickly object and a smooth one.

The loss of one or more of these different "senses" may determine an error of judgment or an entire loss of this faculty. To arrive at an accurate judgment, or in other words, for the complete normality of the stereognostic sense, it is clear that the cerebral cortical center or centers, the conducting paths, and the peripheral receptive sensory mechanisms must be intact. Disturbance of either of these parts of the nervous system may lead to the manifestation of "astereognosis."

IONS AND ELECTRONS.—Bearing firmly in mind the conceptions of atoms and molecules gained in our chemical studies of the past, it is not difficult to pass on to the idea which the term *ion* has been adopted to express. After the establishment of the molecular theory, chemists soon made observations which led them to believe that they had to deal with particles which, on the one hand, were different from molecules and, on the other hand, possessed properties not pertaining ordinarily to atoms. It had been known for a long time that aqueous solutions of some chemical substances (*e. g.*, sodium chloride, hydrochloric acid, potassium hydrate) will conduct electricity, while those of others (*e. g.*, sugar) will not. The substances, aqueous solutions of which will conduct, are called electrolytes. They are altered by the passage of the current, decomposing on electrolysis into certain constituents which become separated, one going to one electrode, the other to the other. Faraday showed that when a current of electricity acted on solutions of different salts, equivalent quantities of metals are deposited by the same current in the same time. All inorganic salts are electrolytes, as are acids and bases. The hydrogen of acids always become separated at the negative electrode, as do the metals of salts, while the rest of the acid-molecule or salt-molecule becomes separated at the positive electrode. It was thought, at first, that the passage of the electric current determined the decomposition of the dissolved substance, though Clausius (1857) assumed that some of the molecules of an electrolyte are dissociated into their ions (kation and anion), and that these move independently of one another. The part of the dissolved substance that goes to the negative electrode was called the *kation*, while the part that goes to the positive electrode was called the *anion*.

The Dutch chemist, van t' Hoff, a little more than fifteen years ago, drew attention to the relation between dilute aqueous solutions and gases. Pursuing his studies further, he was able, in 1895, to apply Avogadro's law for gases to solutions and to make it almost certain that solutions having the same osmotic pressure, at the same tem-

perature, contain the same number of molecules. But just as certain vapors, like ammonium chlorid, exert a greater pressure than would be expected according to Avogadro's law, so van t' Hoff found that certain substances in aqueous solution similarly "disobeyed" the law; these "irregular" substances are all electrolytes, non-electrolytes are "regular."

An explanation of the exceptions to Avogadro's law for gases like ammonium chlorid has been found in the suggestion that some of the molecules break up into a molecule of ammonia and one of hydrochloric acid; such a dissociation would cause an abnormally large gas pressure. Then came the epoch-marking paper of the Swedish physicist, Svante Arrhenius, in which the theory was advanced that in solutions of electrolytes the abnormally high osmotic pressure is due, not to a breaking down of molecules into smaller molecules, as in the case of ammonium chlorid vapor, but to the dissociation of molecules into *ions*, each ion being an atom, or a group of atoms, charged with electricity. Thus, according to Arrhenius, in dilute aqueous solutions potassium chlorid is dissociated into potassium ions (kations) and chlorin ions (anions). The ion is entirely different from a molecule or a neutral atom; it carries an electric charge. The degree of dissociation in a solution can be quantitatively measured by establishing its electrical conductivity. In a concentrated solution of potassium chlorid there is but little dissociation; the substance is present in the water chiefly as KCl molecules and there are but few ions. In a very dilute solution the dissociation is great; there are few KCl molecules present, but an enormous number of ions. Dry copper sulphate is white or about colorless, for its molecules are colorless; dissolve it in water and the solution is blue, for copper ions are blue. Sugar does not become dissociated (ionized) when it is dissolved in water; hence solutions of sugar do not conduct electricity.

Again, when a substance is dissolved in water, the freezing point of the solvent is lowered. Certain substances had been found by Raoult to cause abnormally great

depressions of the freezing point, and it turned out that they were the same substances which yield abnormally high osmotic pressures. The theory of Arrhenius of electrolyte dissociations explains these abnormalities wholly satisfactorily, as well as certain other abnormalities of the lowering of vapor tension of solvents, which need not be gone into here.

The development of the ionic theory has made many old facts turn new faces to us. The vast majority of chemical reactions prove to be reactions between ions, not molecules. When  $\text{HCl}$  is neutralized with  $\text{NaOH}$ , the molecules are first dissociated into their ions and the reaction consists in the union of the hydroxyl ion of the base with the hydrogen ion of the acid to form water, the sodium and chlorine ions remaining as ions in a dilute solution of sodium chlorid. The effect of salt solutions on the heart muscle seems to be due entirely to the action of the sodium ion, the chlorine ion being inert.

But chemists and physicists had still a step further to go, and the step has turned out to be a great leap. Investigators began to ask "What is the explanation of the electric charge on an atom which makes an ion so different from a neutral atom or a molecule?" Illumination comes in an unexpected way. Years ago Sir William Crookes suggested that the cathode rays in vacuum tubes represent matter in a "fourth state," neither solid, liquid or gaseous. He was smiled at and almost jeered at for a while, but it seems he was right. The researches of J. J. Thompson and others have shown that the matter thrown off as cathode rays, and causing  $\alpha$ -rays or phosphorescence where they strike, consists of fragments much smaller than atoms, of ultra-atomic corpuscles of which the chemist's atoms seem to be composed. The lightest atom hitherto known is the atom of hydrogen, but the atom of hydrogen weighs 1,870 times as much as one of these corpuscles. Moreover, no matter what their source is, these ultimate corpuscles appear to be identical. The name *electron* had been given to the electric charge on an ion by Dr. Johnstone Stoney; it is now believed by many that the differ-



ence between an ion and a neutral atom lies in the presence or absence on the atom of one of these ultimate corpuscles of Thompson, so that the name *electron* is now applied to the corpuscle. To some of the wonderful properties of these extremely minute electrons we expect to call attention in a subsequent number.—From editorial *Jour. A. M. A.*, June 13.

THE TRYPANOSOMA DISEASES.—That some controversy has taken place concerning the priority of the discovery of the trypanosome as a pathogenic blood-infesting organism in man, denotes a well-grounded suspicion that this flagellate protozoön and the disease it produces, trypanosomiasis, may in the course of time occupy an important position among the infectious diseases common to man and the lower animals. In veterinary science the trypanosome has long been known as a potent agent of disease causing ravages of great economic consequence among cattle, horses and other domestic animals. In different countries the disease has received names more or less colloquial, and it does not appear to be definitely settled which of these may be due to identical or different trypanosomes.—*Jour. A. M. A.*

IS GENERAL PARALYSIS OF BACTERIAL ORIGIN?—General paralysis is probably better known to the non-alienist than any other form of insanity. This fact, together with its great frequency in the community, and the hopeless prognosis which attaches to a correct diagnosis, renders the subject one of general interest. Its causation is by no means settled, though the theory that it is a post-syphilitic affection, has many advocates. The line of evidence generally relied upon is the greater frequency of the disease in communities, and among classes in which syphilis is common, and *vice versa*, the occurrence of the disease in both husband and wife, etc. And certainly the evidence thus afforded is sufficient to make out a plausible case. On the other hand, there are alienists who believe that syphilis has nothing to do with general paralysis. The

paper of Drs. W. Ford Robertson, McRae and Jeffrey, in the *Review of Neurology and Psychiatry* for April, 1903, therefore has considerable importance, as the authors believe that they have found a bacillus which may well stand in causal relation to the disease. The former investigations seemed to show that the toxæmia of general paralysis is of gastrointestinal and bacterial origin, and that the rôle played by syphilis, alcohol, lead, etc., in the pathogenesis of the disease, is an indirect one, those agents operating in the direction of an alteration of the natural immunity. In the present series of experiments they sought to determine whether the bacterial flora of the intestinal tract possessed any distinctive features, and whether micro-organisms were present in the blood and internal organs. A number of cultures from the blood were uniformly sterile, and this line of work was abandoned. Preliminarily, and pending fuller publication, they are, however, able to record two outstanding facts: First, there is evidence that not only the alimentary canal, but also the respiratory tract, is the seat of origin of a severe toxic infection. Secondly, there is one micro-organism which appears to have a special significance by reason of the constancy of its presence, its enormous numbers, the frequency with which it takes part in a terminal general invasion, the known pathogenic character of the group to which it belongs, and the comparative rarity with which, with the same technique, a similar organization can be isolated from other cases. The organism in question resembles the Klebs-Loeffler bacillus, but is not Hoffman's bacillus. It is most readily obtained from the mucous surfaces of the stomach, tonsils and bronchi. Rats fed for several weeks upon pure cultures, showed no symptoms during the first three or four weeks, but after this they exhibit especially slowness and uncertainty of gait, and drowsiness after feeding. Later they show distinct motor weakness, marked incoördination of movement, dyspnœa, great drowsiness, looseness of the stools and death. The pathological changes observed are gastrointestinal catarrh (especially marked in the upper portion of the small intestine), proliferative and degenerative changes in the liver,

and evidence of inflammatory changes in the lung. In the nervous system, severe degeneration of a large proportion of the cells of the cortex, early acute periarteritis, proliferation of the neuroglia and mesoglia, and infiltration of the pia-arachnoid are found. The cord shows similar changes, the degeneration of the cells being more pronounced. Many nerve fibers show distinct alterations by both the Marchi and Weigert-Pal methods. Thus when introduced by the alimentary canal, the bacillus in question is capable of producing changes especially affecting the nervous system, and changes which, once set up, can go on to death, even though the feeling be stopped. The changes in the nervous system have a distinct resemblance to those seen in general paralysis. The authors themselves say that their work in its present phase does not amount to demonstration, but their results are, nevertheless, interesting as a first approximation to the solution of a much-vexed question.—*Editorial in Medical Record, June 20.*

ABIOTROPHY.—This is the name given by Gowers to the gradual degeneration or failure of vitality as shown in various conditions; such as baldness or falling out of the hair, diseases of the muscles like muscular atrophy and specially, the neuronie failure characterized by sclerosis, the interstitial tissue having apparently an inverse vitality. When the nerve elements decay the connective tissue overgrows. The various forms of degenerative nerve derangements, due to a lack of vitality, which he calls abiotic are noticed, such as infantile atrophy, optic atrophy, spastic paraplegia, Friedrich's disease, paralysis agitans, tabes and paresis.—*Jcur. A. M. A.*

OVERSTUDY AND THE NERVOUS CHILD.—We do not much believe in the intellect, the morals or the pedagogics of the colt-breakers or the boy-breakers. There are better ways to break a horse or a child than to break its will, and the teacher that entertains such diabolic theories should be "broken." The noteworthy fact about the whole discussion is the utter omission from a hundred papers and

discussions of the most important element of the entire matter. There are, it is true, many other factors; there is really overstudy and overpressure, but the one cause of the nervous child, which is ignored, but which is as prolific a source of evil as perhaps all others combined, is eye-strain.—*American Medicine*. But is not eye strain, nerve center strain? Is it not an expression of brain strain? [Ed.]

THE CORTICAL CELL CHANGES IN EPILEPSY—THEIR SIGNIFICANCE AND CLINICAL INTERPRETATION. (L. Pierce Clark and Thomas P. Prout), *Boston Med. and Surg. Jour.*, No. 17, 1903.—In considering the pathological change in epilepsy a sharp distinction should be drawn between the lesions of the cortex, which are a direct result of the epileptic discharge, and the abnormal states of the cortex which precede and predispose the individual to epilepsy by producing an unstable nervous organism. The central idea which prompted the beginning of this study four years ago upon status epilepticus, was that the latter is the most pronounced state of the disease. If, therefore, there are distinct cortical cell changes in epilepsy, such must be present in the most pronounced form following the status. The study comprises an examination of the cortex in eighteen cases of epilepsy from the Craig colony, some of which died during the status. To avoid post-mortem changes as much as possible the brains were examined as soon as possible after death. In the eighteen cases studied the longest period of time elapsing after death before the material was placed in the fixing agent was seven hours. The fixing and hardening agent was absolute alcohol, and the tissues were stained by the Nissl method. For purposes of comparative study some sections of normal brain were prepared in like manner. The condition of the cells of the cortex, especially those of the second layer and other cells of that type, was most striking and differed only in degree in the several cases of epilepsy. The cells were swollen, some being ballooned to twice their normal size. The chromatic substance was almost entirely gone, nothing but a bare framework remaining of the body of the cell itself.



The nucleus was often swollen out of proportion to the swollen cell body. In the majority of instances the outline of the nucleus was difficult to define, all traces of the nuclear membrane having disappeared. The nucleus itself presented a finely granular appearance. They believe that these facts point to a destruction and ultimate disappearance of the cell as a unit in the cerebral cortex. The nucleus is the highest biologic portion of the cell. Recent biologic facts prove that it presides over the vital process in the cell and that without it the cell dies. Since the nuclear changes ultimately result in cell death, we are in a better position to understand a condition so frequently found after status—the infiltration of the cortex with leucocytes. The gliosis, of course, occurs as a remote sequence of the cortical cell destruction, and since cells of the second layer suffer, especially in the acute epileptic process, the great frequency of extreme gliosis in the outer layer of the cortex is readily understood. Probably the most practical lesson to be drawn from this study is that epilepsy is a diffuse lesion of the entire cortex. In conclusion, the authors believe that they have narrowed the gap that has hitherto existed in the knowledge as to the terminal gliosis and the toxic and the autotoxic agents in the pathogenesis of the disease, and that this is largely comprised in the cell changes and particularly those of the nucleus.

THE MENTAL DISORDERS OF CHILDREN.—F. X. Dercum (*Phil. Med. Jour.*), discusses idiocy, imbecility and also the insanities which occur in childhood. Delirium, confusion, and stupor occur quite frequently in infancy; melancholia, mania and paranoia are very rare; the neurasthenic insanities occur, but more rarely than in the adult, and they do not as a rule present themselves in sharply-defined or well-differentiated forms. Dementia precox may come on about the time of puberty or later, and is characterized by two phases, one of depression, the other of expansion or exaltation, the transition from one to the other being gradual. In the treatment of feeble-minded

children therapeutic methods prove of comparatively little value, except in the case of cretins, where thyroid medication has given brilliant results. In the treatment of the insanities of children we are forced to depend mainly upon the application of general physiological and hygienic principles. Discouraging as the outlook is at first sight, much is frequently accomplished. The object should be to force up nutrition by all possible means—rest methods, partial or complete; massage; full, and if necessary, forced feeding; exercise; bathing; out-of-door living. Tonics may be employed as indicated; in periods of excitement sedatives and narcotics may be given, but in a minimum amount, never continued for too long a period, and varied from time to time. When there is stupor or depression, thyroid extract may be tried. In a certain number of cases dementia precox ceases to progress, and in a small number the affection terminates in final and complete recovery. With such facts before us, no case could be abandoned as hopeless, but should be given the benefit of all the measures at our command.—*Medical Progress*.

We dissent from the proposition that feeble-minded children cannot be benefited by treatment. We have seen good results from treatment.

PATHOLOGY OF LANDRY'S PARALYSIS.—An important paper on its pathology and bacteriology has just appeared, by Buzzard (*Brain*, London, Spring No., 1903), in which, after reviewing briefly our present knowledge of the pathology and bacteriology of the disease, he adds the record of a fatal case investigated by himself, in which he isolated from the blood of the patient, after death, a micrococcus apparently different from any previously described organism, and in which he found the same organism in the dura mater. Putting aside the cases in which no morbid change was discoverable after death, the pathological changes of the other cases may be summed up as showing an anterior poliomyelitis, with congestion of the cord and meninges. In like manner the bacteriological findings have varied considerably. In some cases there has been no

micro-organism demonstrable; in others, one or other of the ordinary bacteria of inflammation and suppuration. *e. g.*, the *Staphylococcus aureus* has been found, while in others some specific organism, such as the *Bacillus typhosus*, has been demonstrated in the cord or its membranes. In at least four cases, a diplococcus has been obtained presenting characters allying it to the meningococcus of Weichselbaum, and to the pneumococcus. He deduces from his summary of the pathology and bacteriology of the hitherto recorded cases as follows:—(1) Even by modern historical methods a few cases present no demonstrable lesions. (2) In the large majority of cases the lesions are such as can be produced in the central and peripheral nervous system by toxins, apart from the microbes themselves. (3) In a few cases the lesions are those of a disseminated or diffuse myelitis, or meningo-myelitis, of varying degrees of intensity, and, in some of these, pathogenic organisms have been found in the meninges, spinal cord, and cerebro-spinal fluid, and occasionally in the blood and other organs. His own case occurred in a man, *æt.* 33, who died after a period of symptoms extending over eighteen days. At the post-mortem the chief macroscopic changes were a marked vascularity of the brain and spinal cord, and particularly the dura mater, which, in its outer surface, appeared to be more oedematous and engorged with blood than usual. Portions of the spinal cord, spinal ganglia, peripheral nerves and muscles, were fixed and hardened in 10 per cent. formalin, and sections cut in gum, paraffin, and celloidin, and stained with various histological and bacteriological stains. The histological changes were slight—some chromatolysis and excentration of nuclei of some of the cells of the anterior and posterior horns, and of Clarke's column, and also some fatty change in all parts of the white substance of the cord, peripheral nerves and muscles. The morbid changes may be rightly described as being very slight in degree of intensity, rather widely distributed, toxic in character, and such as might easily have escaped detection by the older methods of staining. In order to obtain his bacteriological results, various culture media were

inoculated from the cerebro-spinal fluid, spinal cord, blood, and spleen. All the inoculations made with blood from the spleen, and with cerebro-spinal fluid, remained sterile, though kept under observation for fourteen days. The solid media and the anaerobic glucose formate broth, inoculated with the heart blood, remained sterile. The broth inoculated with blood grew a micrococcus after a week's incubation. Subcultures were grown in broth and blood agar after another week's incubation. The blood agar tube showed two kinds of colonies, the only macroscopic difference between them being that of size. Each consisted of a micrococcus resembling that found in the original cultures, the individual elements being more uniform in size in the smaller colonies. The micrococcus occurred usually in cultures as a diplococcus of about the same size as the gonococcus. Each half was hemispherical in shape, and the opposed surfaces were distinctly flattened. Occasionally two diplococci lying close together formed a tetragenous group. The earlier cultures did not retain Gram's stain, while the latter subcultures did. The cord, the spinal ganglia, the peripheral nerves, the pia arachnoid, the heart's blood, the spleen, and the kidneys were searched for bacteria, but none found, but in places in the soft vascular tissue lying in the outer side of the spinal dura many cocci were found. They were generally to be seen in close proximity to capillary vessels, sometimes lying free and almost in the walls of the vessels, sometimes lying within cells at a little distance, sometimes appearing in conglomerate clusters in which it was difficult to distinguish the individual cocci. These cocci were believed to be the same organism. A *subdural* injection of the cultivated coccus into a rabbit, produced after some days a rapidly spreading palsy. The same organism was discovered in the dura mater of the rabbit, and isolated in pure culture from its blood. The changes in the nervous system in both the patient and the rabbit were of the kind produced by toxines, and in neither case was the microbe to be demonstrated in the nervous structures themselves, or in the pia arachnoid. His organism presents certain morpho-



logical resemblances to those of Weichselbaum, Still, and Risien Russell; it differs materially from all three in its staining and cultural characteristics.—*Abstracted for Edinburgh Medical and Surgical Journal by R. F. C. Leith, M. B., F. R. C. P. Ed., Professor of Pathology, the University, Birmingham.*

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## PREVENTIVE MEDICINE AND NEUROTHERAPY.

THE HYGIENE OF PASSENGER COACHES.—Recommendations of the American Public Health Association are as follows: They apply to all dwellings and public assembly places and to shops, steamboats, as well as to all passenger coaches.

1. *Passengers Known to be Ill with Contagious Diseases.*—When a passenger is known to be contagiously ill, he should be isolated in a compartment, appropriately equipped, and thoroughly ventilated in a manner to atmospherically separate it from and to protect the rest of the car. Through cars or trains should be provided with sick rooms, as well as staterooms, interchangeable in use, if necessary, and for the use of which charge may properly be made proportionate to the service rendered to the individual and the public.

2. *Construction of Cars.*—The interior of passenger cars should be furnished with hard, smooth and polished surfaces. All surfaces should be smooth and plain. Carvings, moldings, groovings, flutings, and all so-called ornamental work which furnishes lodgment and harborage for dust and dirt, should be avoided.

3. *Furnishings.*—The furnishings of floor, seats, windows, and draperies, should be as non-absorbent as practicable. Wherever admissible, carpets and mattings should give place to impervious material; for plush in seat and seat backs some impervious material should be substituted; curtains of suitable non-absorbent material should be used rather than slatted blinds in windows. Floor coverings, seats, draperies and window curtains should be made easily removable for cleaning.

4. *Ventilation*.—Coaches should be furnished with effective means for continuously supplying not less than one thousand cubic feet of warm air an hour for each chair or other single seat with which the car is provided, and for distributing and removing the air in an effective manner, for doing ventilating work, without troublesome draught.

5. *Temperature Regulations*.—The artificial temperature of the car should be so controlled either manually or automatically as to prevent the debilitating effects of overheating, and the still more harmful effects of chill, or of wide range temperature fluctuations.

The excessive summer heat of cars brought from yards to be made up into trains should be mitigated as much as practicable by shedded yards, protected car roofs, open deck windows and also side windows, while the cars are in the yard; or, if need be, by sprinkling the car roofs.

6. *Car Cleaning*.—The cleaning of cars should be frequent and thorough, and without much, and certainly not exclusive, reference to evident dirtiness, since danger from this cause cannot be safely gauged by dirt quantity, nor indicated by its conspicuity.

The cleaning of all removable furnishings should be done outside the car, and when weather conditions permit, all other cleaning should be with wide-open windows and doors.

The feather duster should be used only with open windows, and for the purpose of lifting the dust so that it may be removed by a strong through current of air.

Under ordinary conditions, interior dusting should be done by means of dampened cloths.

When the cars are in transit and occupied by passengers, any method of cleaning which stirs up and floats the dust from the floor or furnishings should be prohibited. The brushing of floors or carpets with whisk brooms, the brushing of clothing in the open car, the porter's maneuvering for a tip, should be discouraged.

7. *Disinfectants*.—Floors should be washed frequently with suds and an added disinfectant of simple, odorless, and effective nature. The sanitary and lavatory fixtures should

be similarly and frequently treated with a disinfecting wash.

8. *Sterilizing Treatment*.—Thorough cleaning of all fabrics by beating, air blast, dusting, airing, and washing should be supplemented by occasionally subjecting the interior car and contents to disinfectant treatment by sterilizing gases, vapors, or fumes, and by methods of recognized efficacy. Such treatment should be followed whenever any known or suspected case of communicable disease is found among passengers, and periodically, even though such cases do not appear.

All bedding, including, mattresses, pillows, blankets and curtains should be similarly treated, being always thoroughly aired and otherwise cleaned after each use, and sterilized promptly after exposure to a suspected or known case of contagious disease.

All bed and lavatory linen should be thoroughly sterilized in the process of laundering.

9. *Excreta*.—The practice of disposing of excreta by scattering it over roadbeds is both dirty and dangerous alike to the passenger and to the public. Such material on drying contributes to the dust of the road and in the cars, and becomes part of the floating contents of the air of the cities and the country through which the road runs. Convenience in disposal affords no adequate excuse for the maintenance of this slovenly, filthy, and dangerous practice. Sewage tanks and earth closets should be provided under the cars.

10. *Water and Ice Supply*.—Water and ice should be obtained from the purest available source, and none should be used from any source which has not been proved by reliable tests to be safely free from harmful contents. If natural water and ice of such quality cannot be obtained then the water should be treated by the most appropriate and effective method for its purification, and ice should be artificially made from such purified water.

Ice should no more be handled by bare and soiled hands or by dirty gloves than drinking water should be poured over such hands or gloves into the water holder. The use of ice tongs should be insisted upon.

11. *Water Tank*.—The water tank should be shaped and placed with reference to easy access to its interior for cleaning. It should be frequently cleaned and periodically sterilized with boiling water or otherwise.

12. *Drinking Cups*.—The public should be discouraged from using common drinking cups, and educated to use individual cups. To this end, a conspicuous notice might well be posted at the drinking fountain cautioning passengers against the danger of the public cup, and parafined paper cups might be supplied by a "penny-in-the-slot" device.

The vertical jet method of furnishing drinking water—in successful use in some public buildings in this country—is the safest conceivable and the best, aside from the difficulty of adapting a jet to all ages, and from the waste incident to its use by many unaccustomed to drinking water jetted into the mouth.

13. *Food*.—The use of canned goods in buffet-car service makes careful inspection of such goods imperative. Reports of sickness directly traceable to tainted canned edibles served on trains have occasionally reached your committee. Fruits and all edibles should, before and after purchase, be stored with care to avoid all unnecessary exposure to street and car dust.

14. *Fouling of Cars*.—Cars should be protected against all unnecessary fouling. The filthy habit of spitting on car floors should be dealt with in a manner to cause its prompt discontinuance. This nastiness should everywhere be made punishable, and should be punished as one of the most flagrant of the thoughtless offenses against the public right to health. Prohibitory notices should be posted in all cars, and sufficient cuspidors should be provided for the use of passengers. The experience of street car companies has shown that a great reform can be wrought in the matter without serious difficulty.

15. *Station Premises*.—Station premises should receive attention directed to general cleanliness of floors, furnishings, air, sanitariums, lavatories, platforms, and approaches, and should be plentifully supplied with approved disinfect-



ing material, and with pure water, and safe means for drinking it.—*Report of Committee of American Health Association.*

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## NEUROTHERAPY.

A GERMAN CHEMIST, HERR GEROLD, has discovered a means of preventing the ill-effects which sometimes arise from the excessive use of tobacco, which is liable to produce attacks of vertigo, a peculiar form of dyspepsia, palpitation and diseases of the chest. His procedure consists in steeping the leaves of tobacco, before being made up, in a solution of tannic acid, which combines with the nicotine and forms a substance quite inactive and harmless. In order to increase the flavor of the tobacco, it is then treated with a decoction of marjoram. The flavor of the tobacco prepared as above described differs in no way from that of ordinary tobacco, and experiments made with it on weasels, frogs and even human beings, have demonstrated that its use produces no toxic effects on the organism. The pressure of the blood remains normal, the heart beats regularly, and the paralysis which overtakes animals who have been poisoned with nicotine is entirely obviated.—*St. Louis Med. Rec.*

BLUE ELECTRIC LIGHT IN THE TREATMENT OF NEURALGIAS.—Gabriel Arienzo applied this treatment in six cases with excellent results. The apparatus used consisted of a bell-shaped reflector, large enough to converge all the light from a lamp of thirty-candle power. The patient was placed about 15 cm. from the lamp; the duration of the treatment was from ten to fifteen minutes. The author concludes, from the results obtained, that the blue rays penetrate to the deeper tissues and reach the organs beneath. They are endowed with marked anæsthetic properties, which fully justify their use experimentally in neuralgia. The action is probably due to changes in the circulation induced in the afferent and efferent

blood vessels of the nerve, or else to some specific action of the blue light itself.—*Annali di Elettricità Medica e Terapia Fisica, Med. Rec.*

A CASE OF TUMOR OF THE PITUITARY BODY.—Thomas Philip Cowen reports the case of a man of twenty-eight years who had suffered much from hemicrania affecting the right side of the head particularly. In 1895 he presented no signs of bodily ill health, and his viscera were apparently normal. His vision was good. Early in the following year he began to complain of failing vision, and it was found that he had slight bi-temporal hemianopia. In 1898 he became very melancholy because of failing vision. He had at this time a slight but persistent headache, which at times became very severe, situated always in the forehead. In 1899 he was quite blind. The pupils were wide and inactive to all stimuli. There was slight but well-marked atrophy of both optic disks. In November, 1901, he began to get dull and stuporous, and suffered from severe vomiting; gradually sank into coma and died two days later. At the autopsy a large tumor of the pituitary body was found. It was the size of a hen's egg, had not invaded the surrounding structures, but had exercised considerable pressure both on the adjacent brain and nerves, and had practically incorporated in its capsule the surrounding nerves. The optic chiasma and tracts were much flattened and softened. The third and fourth nerves were softened and flattened, and could be traced over the tumor only with difficulty on account of their adhesion to its capsule. The tumor was a fibrosarcoma.—*The Medical Chronicle.*

THE LOSS OF MENTAL VISION.—A. Giannelli and G. Toscani by this term mean the power to form images in the mind of persons and objects previously seen, but for the moment absent. They report four cases in illustration. The first a woman of forty-one years, of neurotic heredity, and subject to epilepsy, when in the hospital was unable to recall her husband's appearance; this troubled her greatly. She was able to recognize his picture, but when

it was taken away, she could not recall even such a detail as whether or not he had a beard. Her case went on to mania. The second case was a man of great cultivation, who, after business troubles, suddenly found that everything about him seemed new and strange. Nothing was familiar, and, in addition, he was totally unable to recall the appearance of his wife and children. He spoke French correctly, but was no longer able to think in that language, and found the French words only by translating from the German or the Spanish, which were the languages of his childhood. He complained that he had lost all his enthusiasm, and that his character was becoming cold and indifferent. The third case was a man of sixty-eight, a diabetic, who was in a condition of melancholia, and who completely lost the power of reproducing in his mind the appearance of the objects most familiar to him. The fourth case was a man of forty, affected in the same way. He had suffered from overwork.—*Il Policlinico*, February, 1903.

NERVOUS DISEASES, DRUGS USED IN.—The general conception of remedies for neurosis is based on the exploded pathological view that a neurosis is a disease of a specific character not underlain by a pathological change, and hence, is erroneous. The nervous system is not a unity, but is made up of structures involving motion, sensation, as well as growth, whose action inhibits explosive performance of various functions. Each of the organs has its own nervous system subject to control by the cerebro-spinal system. Nerve-action means production of nerve-waste, and, hence, involves removal of toxic products. For this reason treatment of the neuroses involves, not merely the use of the so-called nervines, but also the employment of eliminants, general tonics, dietetics, etc. The prevalent view has led to "habits" and to the abuse of hypnotics, analgesics, sedatives, etc. The abuse of these is often due to the failure to recognize the necessity for elimination of the products of nerve-tire and nerve-strain. Even the so-called reflex neuroses generally arise from retention of

waste produced by the constitutional effects of local irritation, and, hence, rarely vanish on removal of the local irritation unless constitutional treatment be adopted.—*G. F. Butler* (*Transactions of the American Medical Association, May, 1903*).

THE LARYNGOSCOPE is one of the best illustrations of a great medical discovery made by a non-medical man. The inventor of this instrument was a singing master of London, Señor Manuel de Garcia, who was still living in London in 1901, in his 98th year. In 1855 he presented a paper to the Royal Society of London, entitled "Physiologic Observations on the Human Voice." His investigations were carried out on himself by means of mirrors, a small one at the end of a long stem, for introducing into the pharynx, and a large one, which served both for directing the light on to the small mirror and to enable the operator to see the image formed on it. Garcia's invention was treated by the English with apathy and even incredulity. His paper, however, fell into the hands of Türck of Vienna, who failed with the device, but later, Czermak converted it from a "physiologic toy" into an instrument of scientific research and popularized its use by his demonstrations on his own throat in Vienna, London and elsewhere.—*George M. Gould, Medical Discoveries by the Non-Medical.*—*Jour. A. M. A.*, May 30th, 1903.

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## CLINICAL PSYCHIATRY.

GOOD LAY ADVICE TO YOUNG DOCTORS OF MEDICINE.—The *Outlook*, June 27th, thus advises recent medical graduates:

"If your patients were all reasonable men and women, your task would be easy; but they are not. Even in their best estate they are not all reasonable men and women, and you will have to deal with them when they are not in their best estate, but are morbid. You will have to deal with patients who throw your medicine out of the window, and still expect you to cure them; in one house with a



mother busy with other things and careless of the sick child; in another house with a mother whose weak and tearful sympathy does much to negative the influence of your presence and the effect of your medicines. It is not enough for you to know physiology and anatomy and therapeutics; not enough for you to know what your medical school has told you; you must know men and women—their physical constitutions, their mental and moral constitutions. You must understand them—their life, their narrownesses, their prejudices, their unreasonablenesses. You must see into them, that you may minister to them.”

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## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

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ORGANIC NERVOUS DISEASES. By M. Allen Starr, M. D., Professor of Diseases of the Mind and Nervous System, College of Physicians and Surgeons, the Medical Department of Columbia University in the City of New York, Consulting Neurologist to important New York Hospitals; Member and Ex-president New York Neurological Society, Academy of Medicine, etc., etc.

A clinician, in the field of Neurological Medicine, of close observation, clear conception and power of concise expression in hospital, amputheatre and pen description, has constructed the valuable book before us. The author is already well-known to the profession of medicine through his previous contributions to the literature of neurology. The profession has become especially familiar with Dr. Starr's "Familiar Forms of Brain Disease," "Brain Anatomy" and his "Atlas of the Nerve Cells."

The present book on Organic Nervous diseases is the outcome of the able author's further neurological observation and research. The mass of pathological and clinical material that has accumulated in the author's possession during the past twenty years in the practice of this specialty, is the justifiable basis for this book. These, together with those investigations and discoveries in neurology during the past ten years, making the diagnosis of nervous diseases less difficult than formerly, and in which the author has been himself an active participant and co-worker and the advances in precision of treatment based on sounder pathology, fully justify the appearance at this opportune time of the excellent book before us.

We go further than the author in a similar preface

statement and make bold to say there are no departments of medicine in which more remarkable progress has been made than in Neurology; none in which accuracy of diagnosis has led to more signal relief, through its suggestions of surgical remedy.

Only the book, not the author, needs introduction to our readers to be cordially welcomed. And we take pleasure in presenting this worthy product of his observant and productive brain.

The subjects presented are such as the mind of the neurologist and general clinician has often to consider in practice. The organic nervous diseases are more numerous and frequent than is often considered. The neuritides, the myelites, the scleroses, the dystrophies of muscular tissue, the cord and brain compressions, abscesses, thrombi, emboli and tumors, traumatism and specific adventitia are constantly obtruding themselves upon the practitioner of medicine. And in this book may be found their elucidation under the light and hand of experience.

This book emanates from the well-known publishing house of Lea Brothers, 706 Sansom street, Philadelphia. The price is, cloth, \$6.00; leather, \$7.00.

**THE EVOLUTION OF MAN AND HIS MIND.** By S. V. Clevenger, M. D., author of the Medical Jurisprudence of Insanity; formerly Pathologist, Chicago County Insane Asylum and Medical Superintendent of the Illinois Eastern Hospital for the Insane, etc., etc. The Evolution Publishing Co., 70 State Street, Chicago, Ill, U.S.A. 615 pages, cloth, price \$5.

Readers of Darwin and Spencer will find psychological food for further thought in this book. It contains chapters on the following subjects, all ably and entertainingly treated: Earliest Man, The Aryans, The Semites, The Middle Ages, Evolution, Heredity and Degeneracy, Superstition, Evolution of Language and Writing, Hunger and Love, Acquisitiveness, Development of the Mind, Evolution of the Brain, The Senses and Feelings, The Instincts and Emotions, The Intellectual Faculties, Mental Diseases, Character, Analogy, Conclusion.

This book, as the reader will note, is a history of the evolution and relation of the mind and body of man and animals. Its pages reveal evidences of painstaking observation and diligent work. The author is well and favorably known for his previous contributions and for the independent and original character of his writings. He says what he thinks without compromise, and thinks what he says. All chapters in the book are good, but those on Hunger and Love and on Superstition will interest both professional and lay readers.

PSYCHOPATHOLOGIE LEGALE. Par Paul Kovalevsky. 2 vol. in-8°. Vigot Frères, éditeurs, 23, Place de l'Ecole de Médecine, Paris. Tome I, La Psychologie Criminelle, in-8°. 6 fr.

In the first volume M. Kovalevsky analyzing the many causes of criminality, shows the general and special symptomatology and presents a very interesting and new view of pauperism and crime. In the second volume, now before us, after giving a short and correct view of the normal mentality of man, M. Kovalevsky studies the general pathological departures from normal mental activity, which disturb society, damage persons and call for legal regulation through courts of justice.

The chapters on morbid jealousy, exhibitionism, pyroklepto-dypso-mania, etc., are very interesting.

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and on hygiene and prophylaxis, by McFarland, Leffman, Babcock and Abrams, both extremely instructive and interesting volumes.

We note in passing a slight typographical error changing the sense of a reference on page 300, of volume 4, and this gives us opportunity to say, also, how remarkably free the book is in this regard and to commend the general excellence of the typographical execution, as well as the easy arrangement of the several subjects for the reader, as well as meritorious in manner of presentation by the writers of recognized repute and ability who have written them.

The chapter on circulatory inoculation, volume 5, is the best, in our judgment, of this altogether excellent and unique series.

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Life and Work of the late Professor Christian Fenger; Memorial Address delivered to the Graduating Class of Rush Medical College, April 4, 1902. N. Senn, M. D., Ph. D., LL. D., C. M., Professor of Surgery, Chicago.

The Treatment of Fractures of the Lower End of the Radius; Cleanliness, the Great Secret in Surgical Success; The Pathologic and Therapeutic Aspects of the effects of the Rontgen Rays; On the treatment of Fracture of the Humerus by the aid of the Rontgen Rays; The Value of the Rontgen Rays in the Treatment of Carcinoma; The Rontgen Rays. By Carl Beck, M. D., Professor of Surgery in the Post-Graduate Medical School and Hospital, New

York; Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik; Consulting Surgeon to the Sheltering Guardian Society Orphan Asylum; Life Member of the German Surgical Society, New York City.

Baccalaureate Sermon delivered to the Graduating Class of Rush Medical College in Affiliation with the University of Chicago Sunday, June 1, 1901. By Nicholas Senn, M. D., Ph. D., LL. D. C. M., Professor of Surgery.

The Postorbital Limbus; A Formation Occasionally Met with at Base of the Human Brain. By Edward Anthony Spitzka, M. D., New York. Alumni Association Fellow in Anatomy, Columbia University.

Tenth Biennial Report of the Wisconsin State Hospital for the Insane, Mendota, Wis., for the Twenty-one Month Period ending June 30, 1902. Being part of the Report of the State Board of Control.

Forty-third Annual Report of the Medical Superintendent of the Matteawan State Hospital, Matteawan, N. Y. (P. O., Fishkill-on-the-Hudson.) For the year ending September 30, 1902.

Problems in Sanitation; Presidential Address before the American Public Health Association, New Orleans, December 9, 1902. By Henry D. Holton, A. M., M. D., of Brattleboro, Vt.

Fifty-fourth Annual Report of the Board of Trustees and Superintendent of the Central Indiana Hospital for Insane. For the fiscal year ending October 31, 1902.

Pennsylvania Hospital. Annual Report of the Department for the Insane for the year ending April 23, 1903.

Hay Fever. Some Methods of Treatment worth Trying; Adrenalin and Ambrosia. Parke, Davis & Co.

Expert Evidence: A Reply to Hon. John Woodward. By Wm. Lee Howard, M. D., of Baltimore, Md.

The "Mixed Treatment" in Syphilis. By A. H. Ohmann-Dumesnil, A. M., M. D., St. Louis, Mo.

Advice to Gonorrheal Patients. By Ferd. C. Valentine, M. D., of New York City.

The Treatment of Chronic Diarrhea. By Charles D. Aaron, M. D., Detroit, Mich.

Report of the Medical Superintendent of the Quebec Insane Asylum, for the year 1902.

Eighty-sixth Annual Report Friends' Asylum for the Insane, Frankford, Pa. 1903.

Uron—Clinical Report. By Dr. Louis J. Oatman, St. Louis City Dispensary.

Phillipe Pinel, a Memorial Sketch. By David F. Lincoln, M. D., Boston, 1903.

Thirty-third Annual Report of the Superintendent St. Louis Insane Asylum.

Fourth Annual Report of the State Board of Insanity. Massachusetts, 1902.

A Thunder-storm before Santiago de Cuba. By Nicholas Senn, M. D.

Annual Report of the New York State Reformatory at Elmira. 1902.

Annual Report of the Memorial Home. 1901.

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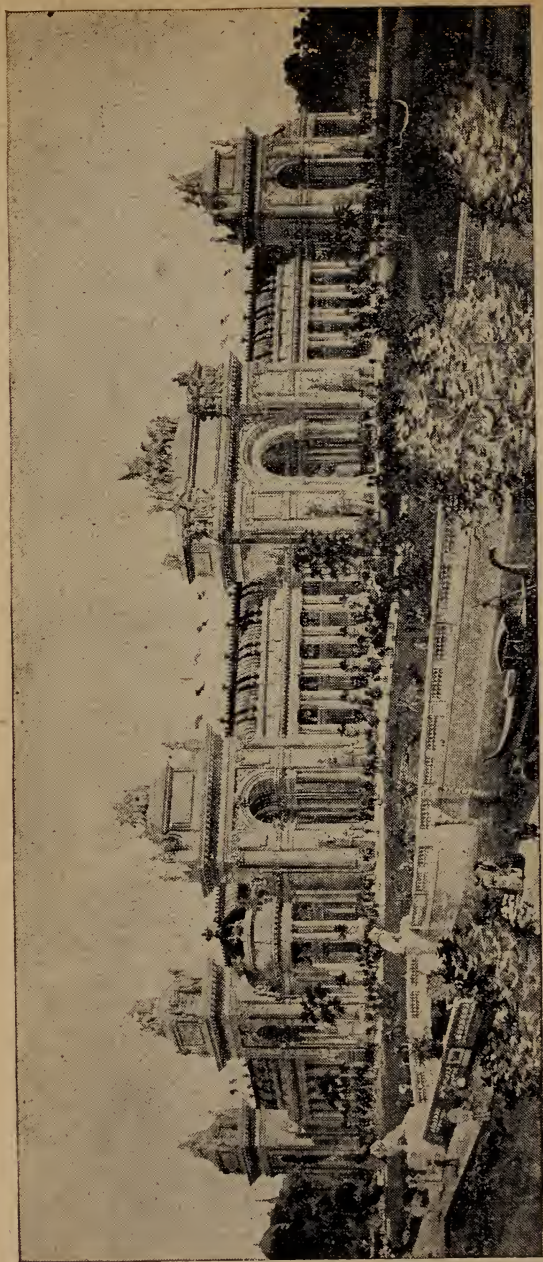
But Sister Lil can't see how Will  
Can touch such tasteless food.  
As breakfast fare it can't compare,  
She says, with Shredded Wood.

Now, none of these Leander please—  
He feeds upon Bath Mitts;  
While Sister Jane improves her brain  
With Cero-Grapo-Grits.

Lycurgus votes for Father's Oats;  
Proggine appeals to May;  
The junior John subsists upon  
Uneda Bayla Hay.

—*Tid-Bits.*

LIBERAL ARTS BUILDING.—The Liberal Arts Building is built of staff. Its contract price was \$475,000 and its builder the Kellerman Contracting Company. Although following the prevailing style of architecture of the Exposition—the Renaissance—it adheres very closely to classic



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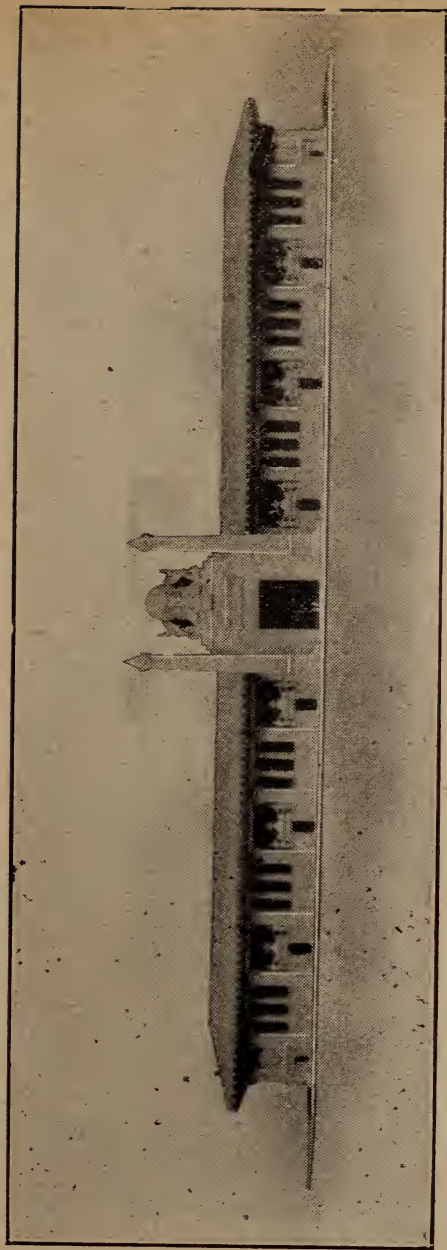
"The main entrance is in the form of a hemi-cycle, with circular colonnades. The ceiling of this hemi-cycle will be frescoed on a background of old gold. The decorations and ornaments will be brought out in relief.

"In the loggias of the building will be mural frescoes on old gold background, which will add subdued color to the picture. There is provision for a broad, allegorical, processional frieze on the interior walls of the exterior loggias. These mural paintings will be executed on a background of old gold.

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**MELANCHOLIA, INSOMNIA AND GENERAL LOWERING OF NERVE POWER.**—In a very forceful and exceedingly interesting paper on this subject, published in the *Cincinnati-Lancet Clinic*, Dr. T. D. Fink of Louisville, Ky., writes the following: "I am convinced that there is no other remedy so useful and attended with such satisfactory results in the treatment of melancholia with vasomotor disturbances, anemic headache, emotional distress, and active delusions of apprehension and distrust as Antikamnia Tablets. These tablets also increase the appetite and arterial tension, promote digestion, and are particularly serviceable in relieving the persistent headache which accompanies nervous asthenia. In neurasthenia, in mild hysteroid affections, in the various neuralgias, particularly ovarian, and in the nervous tremor so often seen in confirmed drunkards, they are of peculiar service. Patients who suffer from irritable or weak heart, needing at times an analgesic, can take them without untoward after-effects, knowing that the heart is being fortified. In delirium tremens, they relieve when there is great restlessness with insomnia and general lowering of the nerve power. The pain of locomotor ataxia yields to treatment with Antikamina Tablets in a remarkable degree, their analgesic power being of a peculiar kind, in that they will relieve painful affections due to pathological conditions of the peripheral nerves, as neuritis, etc., also lumbago, sciatica and myalgia. In chronic catarrh of the stomach, with its often accompanying headaches, in cardiac dropsy, and in ascites, they are of decided benefit."

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nary wear and tear in the vain struggle for existence, may, because of some physical imperfection, have been improperly eliminated. Vin Mariani presents all the efficacious possibilities of Coca in a form that is at once convenient, agreeable and positive.

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TREATMENT OF ECZEMA OF THE SCALP.—Parker pleads for more patience and perseverance in the treatment of this troublesome affection. So many physicians prescribe time or pronounce the condition hopeless, that parents often discredit the physician who promises recovery within a reasonable time. The first measure in successful treatment is a thorough washing and shaving of the head. Castile soap and much water of a temperature not less than 100° F. should be used. The same water should not touch the head twice and pledgets of absorbent cotton are to be used to remove the crusts. When cleansed the head should be dried with a clean soft towel. During treatment the pillow case should be consigned to the wash-tub each morning and a clean one put into its place. These are not over particular but imperative details, if favorable results are desired. Juggery in prescriptions cannot avail and rigid hygienic measures, extending to all the surroundings, must accompany medical treatment. The second step is in the case of nursing infants to treat the morbid constitutional condition, generally found in the mother. The alterative iodia is nearly always applicable, and in severe cases should be administered to both mother and child. If the irritability attending the eruption requires special treatment, bromidia should be given. Some children will require an easily assimilated iron tonic. The bowels must be kept



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open with a mild aperient, given in the early morning. Locally, boroglyceride is the best ointment. Ecthol is also a remedy of much value, being a powerful corrector of depraved conditions in fluids and tissues. It is employed diluted, according to the severity of the case and sprinkled upon a thin cap of surgeon's cotton. The cap should be renewed, and the old one burned, daily.—*Medical News*.

SEVERE REFLEX PAIN.—J. H. Tilden, M. D., of Denver, in the June number of the *Chicago Medical Times*, in an article advocating the use of tampons in gynaecological practice, reports, among others, a case which was characterized by severe reflex symptoms and which had not yielded to the treatment accorded by two other practitioners. Dr. Tilden's procedure was the introduction of a glycerine tampon and the administration of antikamnia in ten grain doses (two five-grain tablets) to relieve the pain. The tampon was removed each night at bedtime and followed with hot water injections. The patient on being discharged, remarked, that since following this treatment she could run the sewing machine without the usual pain and tired feeling.

THE FOOD PROBLEM.—Although the study of domestic economy is more diligently pursued by housekeepers than ever before, there is still a great majority who have not rightly considered the food problem or taken the means to solve it. Many who are adepts in culinary art do not understand the right proportions of the various kinds of foods necessary to the well-being of the human body. Then, on the other hand, many solve the problem to their own satisfaction, and their fads and fancies in regard to food are often the cause of the stomach trouble which they aim to prevent. In an article in the August *Delineator* Dr. Grace Peckham Murray discusses the food problem, and her observation should bring light to many who do not rightly understand the subject.

INDIVIDUALITY IN CHILDREN.—In the July *Delineator* Mrs. Theodore W. Birney has some noteworthy remarks on

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the development of individuality in children. She takes a very radical view, from which some mothers may differ, but there is much wholesome advice in the paper. Mrs. Birney is opposed to the slightest repression of individuality. Every evidence of originality in a child's character, even though expressed in odd ways and mannerisms, should be noted by the parent and made use of in the child's training. A child should be encouraged to *be himself*, and not a temporary representation of principles that are impressed upon him from day to day. In the light of the mechanical nature of modern life, a plea for individuality should be welcomed universally.

FOR SHAKING PALSY nothing excels tinct. Aesculus Glabra, one-half drachm, Celerina, eight ounces. Teaspoonful every two or three hours.

TO EXHIBIT THIS JOURNAL AT ST. LOUIS.—No World's Fair has had an exhibit of journalism. The Missouri World's Fair Commission plans, however, to make such an exhibit in the Missouri State building at St. Louis. As a part of it a bound volume of this journal for the year 1903 will be included. The exhibit will be arranged by the Missouri Commission through its department of publication, of which F. J. Moss of St. Joseph, is chairman and Walter Williams superintendent. This department will make a special exhibit of the history and literature, as well as of the journalism, of the state.

THE MARVELS OF RADIUM.—The peculiar properties of radium may well excite wonder and surprise. All the metal existing in the world could be contained in a teaspoon, and has cost thousands of dollars to produce. The rays, which are known by the name of Becquerel, after the French physicist, are also remarkable. A few grammes of the metal enclosed in a bottle carried in the vest pocket burned holes in the flesh in six hours, producing sores that took weeks to heal. These rays are also fatal to the micrococcus prodigiosus, and may therefore possess great medicinal virtue. The radioactive properties seem due to a gas. The energy of these rays



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PARK VIEW SANITARIUM.—Park View Sanitarium, Columbus, Ohio, is one of the high-class institutions for the care of nervous invalids.

The Annual Report, just published, makes a very creditable showing. This Report will be mailed to any physician, upon request.

THE STATE HOSPITAL FOR THE INSANE, Danville, Pa., held their Eleventh Annual Commencement of the Training School for Attendants July 9, 1903. The fourteen graduates were given a reception by Dr. and Mrs. Meredith.

GRAY'S GLYCERINE TONIC.—We have received some well designed blotters with three little urchins on one end, looking eagerly for something in the distance, but you do not have to look far to find the name of Dr. John Gray's Glycerine Tonic Compound, nor can you blot out the name, or the utility of this prescription, nor the fame of its devisor with any blotter. The children are vigorous and healthy, as if raised under the influence of this prescription as one element of their daily rebuilding.

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RESPONSIBILITY AND CRIME.

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THE MOST RELIABLE AND EFFICIENT TEST FOR RESPONSIBILITY, WHEN INSANITY IS PLEADED AS A DEFENSE TO CRIME, IS THIS: IS THE CRIME CHARGED THE PRODUCT AND DIRECT RESULT OF THE INSANITY ALLEGED?\*

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OF all the problems with which law has to contend, not one, perhaps, is so haltingly met or so unsatisfactorily solved as that of responsibility, when insanity is pleaded as a defense to crime. Law has, with commendable zeal, kept in sight of medicine during the last century, when such great strides have been made in the study of insanity as a disease, and has been ready and willing to accept any and every positive or proven fact which medicine could produce, but it has positively refused, and still refuses, to be led into a vast and never-ending labyrinth of psychological speculation, where it feels that the further you go the less you know, and the more you believe the less you

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\*Written as a post-graduate thesis for the Master's degree, conferred by the Iowa College of Law, Drake University, Des Moines, Iowa, May 20th, 1903, and deemed by the faculty of this institution of sufficient merit to entitle it to publication.

understand. Around this shadowy and unknown world, however, science has succeeded in establishing a narrow rim of good and solid ground, and this the law accepts, though with particularly limited metes and bounds, but declines going any further, where it believes that every step in advance is less secure than the one just left behind. The province of law, to be sure, is the realm of facts, but, is it not possible, that in over-zealously guarding this territory, some few facts relating to insanity have been established which the law has neglected to recognize, and failed to gather into the fold? At any rate law and medicine remain at variance in the consideration of the responsibility of the insane, and it is evident at the very beginning that there must be some reason for the wide, and I might say widening, difference of opinion existing between them regarding the disease known as insanity. It is scarcely possible for men of equal ability and attainments to be so changed and warped by their respective professions as to arrive at such varying conclusions, if they both start from the same premises. I have never been able to see that the methods of reasoning in law differed very materially from the methods of reasoning used in medicine. If they both start from the same point, and are possessed of the same knowledge, with similar methods of reasoning, they must arrive at practically the same results. But do they start from the same point? No. In the first place medicine looks upon insanity as a disease; law looks upon it as a defense to crime which is not above suspicion. Medicine welcomes the insane with open arms as something to be relieved; law looks upon them with cold distrust as something to be avoided. Medicine studies new methods of treating those so afflicted; law plans new methods of detecting the simulator. Medicine throws the mantle of charity and sympathy about this unfortunate class; law ruthlessly tears it aside, and, transfixing, as it were, each quivering symptom with a bare bodkin, holds it up to the public gaze to see if it be genuine or no.

Looking at insanity from these varying standpoints as they do, does it not logically follow that their definitions



and classifications would likewise differ? And they do. Medicine looks upon insanity as a disease, which, however limited in its manifestations, extends in a measure to other parts of the brain, and to some extent involves the whole structure; that this condition is best studied from its mental characteristics, and that the psychical symptoms furnish the best basis for classification. Law looks upon insanity as a derangement of the faculties prone to manifest itself at times in rebellious and unlawful acts, which should either be punished or excused, and from which arises the question of responsibility. The physician looks particularly to the psychical quality of the patient's delusions, as well as to his general mental condition. Is he elated or depressed. Has he delusions of persecution, or of grandeur and well-being. Has he hallucinations of sight or hearing. Is he markedly emotional. Does he entertain delusions regarding his own personality. These, and similar questions, are asked by the physician, and these are weighed and considered as carefully and deliberately as questions of fact are considered by the jury in its box. But in the opinion of the law these questions are ignored. Psychical conditions are airy nothings. In law the question of insanity is simply a question of conduct. The law is not interested in what the prisoner *thought*, which might indicate insanity at the time the crime was committed, but in what he *did*. The law cares nothing about the insanity of an individual so long as he behaves himself. He may believe himself to be the Apostle Paul or the reincarnated Elijah with impunity, so far as the law is concerned, if he continues to walk in the straight and narrow way and commits no indictable offense.

Owing to these different methods of considering the question of insanity, it is not surprising that legal and medical ideas regarding classification should differ, and I believe they do, though law has little to say upon this subject. Medicine classifies insanity into mania and melancholia with their various subdivisions, alcoholic insanity, general paralysis, dementia præcox, paranoia, toxic insanity, secondary dementia and so on. These are qualified by the condition of the emotions, or the nature of the delusions,

as melancholia with delusions of persecution, manic-depressive insanity, circular insanity, *et cetera*. These conditions are all based on psychical manifestations, and upon their correct interpretation rests the reliability of the diagnosis and the consequent prognosis as to curability. Law shuts its eyes to the psychical element; brushes aside the diagnosis; cares nothing about what its technical name may be; receives the statements of the ablest and most experienced experts with a feeling of distrust, and believes itself cheated if the prisoner is acquitted. Law has its eye singled but to one thing, namely: Punishability. It is not a question of curability but of responsibility. And so long as medicine and law focus their attention upon these divergent points, just so long will there be grievous dissensions and an endless war of words. There is merit and truth in both positions, and the welding of the two might give a clearness and perspicuity which neither possesses alone. It might give medicine a more practical view of insanity as related to crime, and not only soften and moderate the unnecessary harshness and austerity of the law, but supply it with a more reliable and more efficient test for responsibility.

Let us see if a classification of insanity cannot be made, satisfactory to both law and medicine, and applicable particularly to the criminal insane, whereby the psychical element is recognized, but at the same time placed upon a more practical basis, from which the deductions relating to the question of the responsibility of the insane may be more easily and more accurately drawn.

The human mind is an enigma to the world at large and a constant revelation to itself. There is no height it cannot reach, no depth it cannot fathom, except itself and kindred minds. It is man's greatest glory, and again his greatest shame. It can rise to the highest and supremest flights of thought, or grovel in the dust of self-abasement. It can love; it can hate. It can suffer a martyr's death, or throttle a sleeping babe. It can be the most beneficent function that God in his great mercy could have vouchsafed to mortal man, or it can be the most damnable

thing that the great arch-fiend could have devised for the excruciating and devilish torture of wretched humanity. Its knowledge is comprehensive, but of itself it knows the least. A thousand eyes are gazing, and a thousand ears are listening, to catch its secrets, but it eludes them all. It thinks songs that stir the martial spirits of a million men, or soothe and comfort a breaking heart, or fill the maiden's eyes with tears. It thinks the eloquence that sways the multitude as by a single breath, or holds up vice to public scorn, or pleads the blessing of a Saviour's love. It thinks the poetry that in its measured strain, touches the hearts of careworn men, and bids them hope again, or chants a drowsy lullaby to children tired of play, or weaves its fairest tendrils round the thoughts of yesterday; then calmly asks the question, *What is thought?* And none can say. Marvelous in its inception; strong in its grasp of the eternal verities; weak only in its knowledge of itself. God alone knows the height, and depth, and boundaries thereof. Open and bright as the noonday to theories, it is hermetically sealed and dark as Egyptian midnight to facts. The careful searcher for Truth gropes about in this plutonian darkness and weeps because he finds so little, but the theorist revels in the unlimited opportunities offered. No theory need fail for lack of material in this prolific zone. New divisions of functions are being made, and new and unexplored territories are being annexed every day, not by right of discovery, but by virtue of necessity, to prop up some tottering theory. Old landmarks are destroyed and new ones raised. Psychological systems born of the ages, and universally believed, may be withered by a single breath from some great man who has fostered another and a different one. Ideas of today are superseded by those of tomorrow; and ideas of tomorrow often, by a process of atavism, revert to those of the day before. Verily, in the field of psychological research, no man knoweth what a day may bring forth.

A few things, however, have stood the test of time and research and escaped destruction at the hands of these psychological iconoclasts. One of these elements of the human

mind, which seems to have an established position and universal recognition is Will, but even this is sometimes misunderstood or misapplied. It is quite a common belief that insanity is the result of a weak Will, or a loss of Will power; that the Will is destroyed, and the man drifts aimlessly on life's tempestuous sea, without rudder and without chart; buffeted about by every adverse wind; ebbs and flows with the moving tide; a creature of circumstance, of choice bereft; thinking his thoughts in a mechanical way; doing his acts automatically; no more responsible for what he does, than the old, dismantled hulk, that drifts across the steamer's bow and wrecks her in mid-ocean. And this belief is not always absent from the minds of some who have devoted years to study, and who have had extensive experience with the insane, and furthermore, it is this belief which is at the bottom of the plea for the universal irresponsibility of the insane. This is the theory which prevails, and is daily observed, on the wards of hospitals for the insane, and it is well that it is so, for here there are no legal problems to be solved, nor crimes to be punished, and the only way to insure kind treatment and good care to the wards of the state, is to make "complete and total irresponsibility of the insane" the watchword, and the one central principle around which all else revolves, but, nevertheless, it is evident to every intelligent officer of these institutions, that there are, in spite of the theory, degrees of responsibility in the patients under his care, and that many of them, during periods of disturbance, commit improper acts willfully, deliberately and with malice aforethought. These periods of violence, indeed, are often nothing more than a culmination of willfulness, and yet, cognizant of this, the expert, called to the witness box, will immediately revert to the original theory "universal irresponsibility of the insane." This idea is an excellent one in its place. It, alone, has broken the shackles from a thousand maniacs chained in dungeon cells; it, alone, has aroused the sympathy of all of God's people for this most unfortunate class; it, alone, has reached out its charitable hand and made human pariahs cherished and protected wards of the state;



t, alone, rang the death knell to brutality in hospitals for insane, and gave us kindness, and gentleness, and brotherly love, instead. In these institutions it is necessary and eminently proper, but, admitting all this, why carry it into the realms of law, where the existing conditions are entirely different, and where it is neither necessary nor proper? This theory, though untrue, should still be recognized in hospitals for insane for the good it has done, and still may do, but should not be received in courts of law, because it subserves no good end, and, besides, is contrary to the evidence and the facts in the case.

That Will power is lost in the insane, as a general statement, is untrue. On the contrary the most difficult thing to contend with in the care of the insane is this Will (or Won't) power, which is the same thing, and the more violent the patient, the more in evidence is the Will. How else could it be otherwise, when every act of volition depends upon the Will? The acts of the insane are not necessarily automatic, but are designed, however crudely, or erratically, and afterwards carried into effect with an amount of energy and vigor that is astonishing. The patient who conceals himself and springs upon the attendant with the intention of doing him bodily harm; the one who secures a deadly weapon and uses it upon the attendant or some fellow patient, and must be overpowered before he can be disarmed; the one who destroys clothing or furniture; the one who relies implicitly upon his own muscular strength and defies anyone to touch him; and, likewise, the one who resists everything done for him; who refuses to bathe and force must be employed; who refuses to be dressed or undressed; who refuses to eat and whose jaws must be forced open to introduce a feeding tube; these, and many others, are evidences and living examples of an unusually strong and dominating Will. It is safe to say that no person devoid of Will ever committed a crime. Will is the very essence of an act, as it is of every volition, and you could no more have a volitional act performed without Will, than you could move the wheels of an engine without turning on steam. Some individuals, unable or

unwilling to account for misdeeds, have said that they "acted against their Will; that they couldn't help it;" that they "wanted to do right, but couldn't," and the surprising thing is that in many instances they have been believed. The fallacy of such claims is self-evident. They could not act *against* their Wills because Will is the essence of the act and without it there could have been none. "Couldn't help it" means they didn't help it, and "wanted to do right, but couldn't" simply means that they didn't "want to do right" as much as they wanted to do something else.

In every human mind there are two contestants for supremacy; two claimants for authority; two aspirants to power; two rulers with but a single throne. These are Judgment and Desire, and between them stands Will, the servant of either and the friend of both. It is a duality of nature. Desire represents the animal nature and the evil propensities inherent in man, and is a product of heredity. Judgment represents the higher intellect, and is a product of education. Desire bases its right to rule on a long and unbroken line of inheritance, and looks upon Judgment as a usurper, while Judgment admits that the claims of Desire are good and sufficient in law, but asserts its right to rule by virtue of conquest and the grace of God. Man has not descended from the angels, but ascended from the monkey, and a long train of animal passions and animal desires have followed the process of evolution. Judgment has been acquired by teaching and training; by the nature of our associations; by right methods of thought, and all that goes to make up environment. These two, Judgment and Desire, hold rival courts in every brain, and here are waged those bloodless wars between what we want to do, and what we ought to do. In some mentalities the conflict is over, the battle is won, the question is settled. There is no more uncertainty, and the man emerges from the combat, either a criminal or a great and good man. In other instances the struggle goes on daily, but in either event the Will is passive, simply carrying out the instructions of the stronger and more dominant, and is always able to respond, else the act in question would never have been performed.

The Will never runs riot, and is never uncontrollable. It never takes the initiative. It possesses an inherent power of action, but must first be set in motion. It is the powder behind the shot, but a finger must press the trigger; and Will acts with equal vigor, whether the trigger be pressed by thoughtless passion, vicious desire, or fair and impartial reason. It is a faithful servant, awaiting the master's command; now executing the orders of Judgment; now effecting the commands of Desire. And, even when both Judgment and Desire have been obliterated by the ravages of time and disease, the powder and shot may still remain in place, awaiting the incentive to action, but the finger has long been palsied and the trigger remains unpressed. Every man has perfect control over his Will and he controls it either through Desire or Judgment. Desire is a constituent element of the mind, just as Judgment is. It is not an intruder, nor is it a disease. It is a law of nature, and holds its position by the inalienable right of inheritance. It is a sad and sorrowful heritage, the destroyer of happy homes and the ruination of many an otherwise good man, and it is there through no fault of the individual, but, despite all this, he must be held accountable and responsible for its expression in the form of concrete acts, else the race would be given over to licentiousness and crime.

Consequently, a man who yields to the dictates of Desire is vicious, and this whether Desire has been cultivated at the expense of Judgment, or Judgment has become diseased and unreliable; but a man who acts in response to the dictates of a diseased Judgment is insane. If the act complained of bears no relation to Judgment; if there is no evidence of Judgment having acted, and the deed is solely the product and direct result of Desire, it is vice. If Judgment has acted, no matter how lamely or imperfectly, and the act is the product and direct result of that Judgment, it is never vicious, and the quality of the Judgment determines the question of sanity or insanity. In other words: A man who follows the dictates of Desire is vicious whether he be insane or not. A man who follows the dictates of Judgment is conscientious

whether he be insane or not: So that the insane may be divided into those dominated by Desire, and those dominated by diseased Judgment, or, what for better words, I may call the vicious insane and the conscientious insane. If a man has a diseased and imperfect Judgment, but at the same time is actuated by a strong preponderance of Desire, he belongs to the class of vicious insane, and should be held responsible for his acts in law. On the other hand, if he has a diseased and imperfect Judgment, with either weak or strong Desire, but is nevertheless actuated by his Judgment, weak and diseased as it may be, he is not only insane but irresponsible, and should be held guiltless of all crime. God never intended that man should yield to the dictates of Desire, for the fruits of Desire are always vicious. Strong Desire, with faulty training in youth, produce the criminal. Strong Desire, with a diseased Judgment, produce the vicious insane. The viciousness of the criminal is crime; the viciousness of the vicious insane is no less a crime. The crime of the criminal is punished; why not the crime of the vicious insane? But, it may be said, the vicious insane should not be held responsible for the results of disease and heredity. No more should the criminal be held responsible for the results of heredity and early training. One could not help his disease, and the other could not help his early teaching and associations. Or, it may be urged, why, when the criminal grows older and is master of himself, does he not choose to do differently? He does choose, and the act is the expression of his choice. Likewise do the vicious insane choose. It may be done carelessly and hurriedly, with little or no consideration, or with reckless indifference, but the act itself is proof of the choice, for there can be no conscious act without the Will, and there can be no exercise of Will without a choice having been made. The better element may have opposed the action; may have felt in a measure the danger or disgrace attending it, and have been overruled by strong Desire; but the fact that Judgment opposed the action, recognized its possible danger or disgrace, and was finally overruled, is only additional evidence that the subject was



under consideration and a choice was made. Desire is not an armed force, or a malevolent enemy, that gathers a man in his strong arms and runs away with him whether or no. It is an integral part of the man, and more closely associated with every fiber of his nature, than any of the acquired graces which seek to control it. It is the thankless legacy of ungodly progenitors, and is bequeathed to criminal and vicious insane alike. Then why should the criminal be held responsible and punished for his crime, and the vicious insane be acquitted, when heredity is equally present in both, and expressed in the same form? I can see no reason why the law should not deal with one as with the other, justly but firmly, for vice is no less vice because associated with insanity.

But the conscientious insane, on the other hand, are entitled both to the mercy of God and the sympathy of man. He has been robbed by disease of the crowning gift of the Almighty. His Judgment is weak and diseased; crossed by seamy lines, and where once all was order and regularity, now is found chaos and confusion, but, so long as he follows, as best he can, the flickering light still left, what matters it how erratic his course, or how devious his way; what matters it how grotesque the mental pictures now produced, or how deluded the products of his brain? He has always relied upon his judgment and it has never failed him. He does not see the ravages disease has wrought, but still turns to it for counsel as to an old friend, tried and true, and if it leads him astray, what can he do but follow? If it tells him that he is made of glass; that the sound he hears is the voice of God speaking to him out of the storm; that the wife of his bosom is a fiend incarnate, bent on his everlasting destruction; that he is a king by divine right, and ruler of the earth, and sky, and all that in them is; that God has been angered, and can only be appeased by the slaughter of his only child; who would raise his hand to punish for acts prompted by delusions such as these?

A large percent of the chronic insane belong to the vicious class. Many, or all, of the delusions entertained during the period of active maniacal disturbance have dis-

appeared, or lost their dominating influence, but the higher intellectual faculties have all felt the ravages of conflict and the stress and strain of disease. All the acquired, and consequently finer, faculties have been dulled. Attention is impaired; memory is weakened and judgment is vacillating and uncertain, but the inherited elements of our natures—the animal propensities and evil desires—retain their pristine vigor and activity. This class of insane can never be relied upon, for many of them would commit all the crimes on the calendar if opportunity permitted and desire was urgent. They resent all opposition, and whatever they want they will have, and whatever they desire they will do, unless restrained or controlled by others. They will not listen to reason—they reject it as unpalatable, and for the same reason that they ignore their own faculty of judgment, simply because it is opposed to their desires. These constitute the large number of petty offenders among the insane, and are responsible for their acts, and, I believe, should so be held.

What then should be the test for responsibility? Not “brute knowledge”—that, thank Heaven, has long since been abandoned. Not the *degree* of insanity—for the measure of insanity can never be a measure of responsibility, because insanity may be the progenitor of crime with equal facility, whether the sun of reason has set to rise no more, or is only in partial eclipse. A single delusion may, by its very nature, lead logically and conclusively to the perpetration of the deed, while a score of delusions having no reference to the crime, should not exempt the prisoner from responsibility. Not the right and wrong test—for the words right and wrong convey no real or adequate meaning to the brain that has already satisfied itself as to its proper course by methods of reasoning peculiar to itself, and which, if memory is good, is only able to recall that somewhere, at some time, it was said that certain things were right and that this thing was wrong, but these words, with reference to this particular act, have lost their real significance; while if the prisoner is really responsible, and is a case of vicious insanity or a simulator, the test is too simple and to eas-

ily eluded. Nor is the "power to choose the right and avoid the wrong" test above criticism, for who can look into the human mind and explore its inner workings? God only can delve into man's consciousness and read it aright. To attempt to establish such a test is only to guess at what we know nothing about. What man can say of another that he had, or had not, a *power* to choose the right? That he *did* choose is quite certain, and the act committed is evidence of the nature of his choice and whether he chose the right or otherwise.

The most efficient and reliable test, it seems to me, is this: Is the crime charged the product and direct result of the insanity alleged? This requires, of course, that the insanity shall first be proven, but does not indicate that the establishment of insanity necessarily carries with it a condition of irresponsibility. If the alleged insanity is proven to be associated with a vicious nature; if the crime charged is the product and direct result of hatred, or malevolence, or evil passions, or wicked desires, then the act is vicious in its nature, and vice should never be vindicated simply because disease has given it undue prominence. A man is not responsible for his insanity, but *is* responsible for his vice. To believe otherwise would be to place a premium on wickedness and crime, for who is so vile or so depraved that he cannot offer *some* excuse for the vice that is in him? Every criminal could plead faulty training, or early association with crime, or lack of proper education, or many other reasons as the cause of his vice, which would be entitled to as much consideration as that of insanity, but the law, while regretting the unfortunate conditions under which he was born and has lived, shows no mercy nor mitigates the penalty for wicked and vicious acts.

If, on the other hand, conscientious insanity be established; if the prisoner be the victim of delusions or hallucinations; if his processes of reasoning be imperfect and misleading, though starting from correct premises, or perfect and logical but based on premises which are untrue; if, while drawing conclusions as best he can according to his

light, the light becomes a flickering, wavering will-o-the-wisp that leads him into devious ways where saner men would never go; if he uses the judgment disease has spared, in an effort to do what to him seems right, even though it leads to a bottomless pit, then is he not only insane, but honestly and conscientiously so, and acts born of this insanity, however erratic or criminal they may seem to be, are as honest and conscientious as though he possessed a master mind and was as pure as an angel in heaven.

But, having proven this form of insanity, something still remains to be done before responsibility be established. There must be some connection between the insanity and the crime committed—nay, more, the crime must be the product and direct result of the insanity. A man may have delusions; he may have hallucinations; he may entertain all manner of vagaries; his diseased judgment may lead him into the most unreasonable and even dangerous conclusions, and yet the crime charged may have no direct relation either to his delusions, his hallucinations, his vagaries or his most illogical deductions. Where, however, the crime is a natural and logical sequence of delusions, or hallucinations, or vagaries or erroneous conclusions, then the prisoner should be held irresponsible, and this, too, even though the crime would have been a punishable one had the facts, instead of being delusions, been absolutely true; for how can one, whose reasoning is so erroneous as to unfalteringly lead him to the perpetration of a crime, under the belief that he was doing right, reason correctly regarding degrees of criminality, or discriminate between crimes that would, and crimes that would not, be allowable, should the delusions he entertained prove to be true? If, without viciousness or evil passion, he believes that the thing he has done, whatever its enormity, is the only thing that could be done, he should be held innocent of malicious wrong-doing.

To sum up the whole matter: If the crime charged is the product and direct result of the insanity alleged, and the connection can be satisfactorily established, then the prisoner should be held irresponsible. If, on the other



hand, no such connection can be established, and the crime charged is not the product and direct result of delusions, hallucinations or other errors of judgment laboring under disease, then the act should be viewed with very grave suspicion, as being vicious in its nature, and the offspring of unlawful desire.

Two things, then, are required—to establish the insanity, and to prove a direct connection between the insanity and the crime. The first—establishing the insanity—I believe to be the province of the physician, (appointed by the Court) for I am slow to believe that the best interests of society are subserved by leaving such questions to the decision of a jury. I know all that has been said about professional expert witnesses, and regret that much of it is true, but there are also professional jurymen, and between the two there is little to choose. Those who have made a study of insanity; who have lived in daily contact with it; who have had every possible opportunity to observe and familiarize themselves with its external characteristics, are best qualified to judge of its presence in a given case. Determining, however, whether or not the crime is the product and direct result of the insanity, is the province of the jury, for this involves a series of facts, the consideration of which is not necessarily based upon special study or long experience. Let the physician determine whether or not insanity is present, and then let the jury decide whether the prisoner is responsible or irresponsible, by weighing all the facts in the case, and finding whether or not the crime is a direct sequence of this insanity. This, I believe, will give better results than methods now in vogue, and it not only jealously guards the rights of the prisoner, without undue sentimentality, but detracts nothing from the majesty of the law.

In conclusion I might say that in writing the foregoing, I have endeavored to consider the questions discussed from the standpoint of both medicine and law, and, while the proposed test for responsibility is by no means perfect, it is, I believe, more effective, more reliable, and more efficient, than those now in favor.

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# GLOSSARY OF THE APHASIAS, ASYMBOLIAS, AND ALEXIAS, WITH COMMENTS.

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WITH the diagrams I have shown you as keys and the varieties of aphasic lesion recapitulated, you ought to unlock the outer door of the cerebral chamber of language expression lesions, and find the lines that lead to and from them in the brain. But do not forget that its portico is the Isle of Reil and its chief portal is the posterior aspect of the third left frontal convolution, though there are other domiciles of speech failure in this vicinity, but all under the same or near by neurone roofs and within neighboring convolutional walls.

Aphasia is a comprehensive and inclusive term embracing the following, which may be designated as the aphasias.

*Aphasia*.—Proper or motor aphasia is usually described as a cortex speech center lesion characterized by inability to formulate word or sound or symbol ideas into oral or written speech. Motor verbal aphasia, involves Broca's speech center in disease.

*Aphasic*.—Pertaining to, of the nature of, or affected with aphasia. (Foster's Dict.)

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\* Two lectures to junior and senior medical students.

*Aphasiac.* (Proposed).—The person affected with aphasia. The aphasiac individual.

*Amnesic.*—Pertaining to, of the nature of, or affected with amnesia.

*Amnesiac* (Proposed).—The person affected with amnesia.

*Sensory or Psychosensory Aphasia.*—Loss of the power of written, spoken or otherwise lettered or symbolically expressed language comprehension.

*Alexia or Perceptive Aphasia.*—(*Alexia*, *a* priv. + *λεξις*, speaking or reading. Inability to read as the result of diseased conditions of nervous centers not involving loss of sight. Word blindness; text blindness). Inability to read without other blindness, caused by special involvement in disease of sight center neurones concerned in discerning word characters; it includes also failure to see letters or words while oral or spoken words are comprehended and other things are seen.

Alexia is defined by Lichtheim as a form of aphasia displaying “defective understanding of written signs as shown by inability to read aloud correctly.” This is clearly a visual sensory aphasia due to derangement of the visual perceptive centers or to defect in the channels of communication with Broca’s speech center of the brain.  
*Visual Aphasia, Word Blindness.*

*Asemia.*—(*ασημα*, unintelligible, *σημα*, a sign. Giving no sign).

*Aphesis*, from the same word in Greek, meaning to let go, a lapsus linguae, and may be displayed during inattention to a subject.

*Aphrasia* means, as its name clearly implies, inability to form phrases or imperfect aptitude for forming them.

*Aphatisch* (in German) means a person affected with aphasia amnesica.

#### SYNONYMS FOR THE PRECEDING.

*Asymbolia.*—Inability to comprehend signs or tokens or speech. Steinthal’s term for aphasia, agraphia, amimia and other forms of speech failure. Used to include alexia, paralexia, anakroasia, paranakroasia, parasemia, asemia

graphica, mimica, perceptiva, verbalis, etc. Asemia and asymbolia are synonymous.

*Auditory Aphasia.*—Word deafness and speech confusion in consequence. Hears sounds of words but cannot discriminate them as words and speaks oddly in consequence. Temporal lobe aphasia. Look for insanity with auditory mental confusion and auditory hallucination here.

*Paralexia.*—Inability to understand spoken words; aphasia letheca or lethologica. ( $\alpha\prime\phiασια$ ;  $\lambda\eta\theta\eta$ , a forgetting;  $\lambda\acute{o}\gamma\omicron\varsigma$ , a word) a synonym of aphasia amnesica.

*Aphasia Acoustica or Hearing Aphasia.*—Same as preceding, not deaf in general, but responds irrelevantly to certain words and sounds. Interrogate these cases closely for mental disorder.

*Anakroasia* ( $\alpha\kappa\rho\upsilon\sigma\iota\varsigma$ , *hearing*).—Inability to comprehend spoken words owing to broken connection between auditory and speech centers. Auditory aphasia.

*Apraxia.*—Loss of comprehension of the uses of familiar objects. When extensive it is likely to be more than aphasia; may be confounded with or precursory to softening. Audamentia. Often associated with auditory aphasia.

*Motor or Oral Speech Aphasia.*—(Proposed by Carleton Bastian). Complete or partial inability to formulate or express thoughts in language. (Verbal). ("Inability to speak only and not a more or less inability to speak and write such as we encounter in aphasia proper." Bastian).

*Agraphia.*—(Proposed by Dr. Wm. Ogle). A variety of motor aphasia characterized by inability to express word thoughts in writing, though he may speak fairly well. Makes meaningless strokes for letters, though he may have once written a good hand, and spells badly, though once a good speller. All bad spellers are not, however, agraphics, and the plea of agraphia will not be accepted in this college in extenuation of bad spelling by students.

Some bad spellers are lunatics and some only students or others who can not, or do not care to spell well. The chirography of the insane is an interesting subject to engage your attention later. Dementia, general paralysis, dis-



seminated sclerosis, choreic insanity and some other forms of mental disturbance, as in delirium tremens, hysteria and melancholia are revealed in the elisions, ataxic pen or pencil strokes and other forms of irregular handwriting, and in peculiar drawings and outlandish caricature.

Bastian records the case of "a woman in whom there was a most remarkable inability to pronounce even the simplest words which she saw in print, though she could repeat the same word with the greatest ease when asked to do so orally, and explains that there can be little doubt that in this woman the connections between the visual but not the auditory perception and speech centers were broken through in the left hemisphere. Speech, therefore, he says, could not be initiated through sight impressions, though it was easily done through the sense of hearing. It could not be roused through the sense of sight, simply because the impressions received in the visual centers were unable to awake their corresponding impressions in the auditory perception centers." This explanation was made as far back as 1874 and contains the physiology and philosophy of most forms of aphasia, as thus far discovered. The same principle of explanation applied to other centers and their connection with Broca's convolution, will make the understanding of the different aphasias plain to you.

*Amimia*.—(*A* priv. + *mimus*, a mimic), loss of power of pantomime due to cerebral lesion.

*Aphasia Amimica*.—Pantomime or gesture aphasia, including facial expression. These ought to be separated, as their psychomotor relations to the speech center are in different psychomotor areas. I have therefore separated facial expression aphasia from amimia or pantomime aphasia. And I think there ought to be a term for manual expression or digito-manual expression aphasia. Let us put it in the list. We might as well make technical terms as the rest. There will yet be many more word coinages expressive of the varying phases of aphasic expression, dependent upon its varied relations to the other centers of the brain, as they are discovered.

*Amusia*.—Loss of ability to read or comprehend music.

*Tonaphasia.* (Proposed).—Aphasia relating to the comprehension of musical sounds, as distinguished from musical notes or signs. Ability to speak without ability to remember or carry a lately familiar tune.

*Amnesia of Broca.*—Aphasia verbalis or pure word aphasia. Verbal as distinguished from writing power aphasia.

Amnesic, amnestic or amnemonic aphasia now signifies a simple impairment of word or name memory. A tardy, temporarily suspended or long delayed power of remembrance, common to healthy persons whose brains are fagged or tired. The right word refuses to come at the right time responsive to the mind's bidding, but no wrong meaningless word or utterance is substituted, but the mind seeks its idea synonymously and often with circumlocution, until the temporarily lost word is recalled.

*Ataxic Aphasia or Verbal Ataxia.* *Aphemia of Broca.*—Inability to write by reason of speech center lesion, as distinguished from amnesia. A synonym for agraphia.

*Anosmic Aphasia.*—Aphasia connected with the memory of words related to the olfactory sense.

*Aguesic Aphasia.*—Lost word memories relating to taste. This is exceptional, like anosmic aphasia. Aguesic anosmia aphasia. Lost memory of words recalling smell and taste.

*Word Blind Aphasia.*—Wortenblindheit, word, letter and musical note blindness, may exist without speech or ton-aphasia.

Many of the verbal expression defects and some of the word comprehension defects may be due to defective knowledge. This must be properly understood by the physician who attempts a diagnosis based upon them. A thorough knowledge of this subject will aid in the understanding of the location of disease within the brain or in its relations to the world outside, through the nerves.

*Paraphasia.*—Choreiac paraphasia. Substitution of wrong for right words, letters or combinations of words or letters.

*Paraphrasia.*—Substituting wrong words or phrases or paragraphs for right ones.

*Paragraphia.*—Writing wrong words or paragraphs by meaningless or not intended combinations.

*Paralalia, Literalis or Paralalia*.—Perversion of speech or letter or musical note enunciation.

*Paralexia*.—The transposing or perverting the use of words in reading into meaningless phrases.

*Paralogia*.—Illogical and delusional speech resulting from mental defect, as in paranoia or monomania.

*Paramusia*.—Musical aphasia, or confused, wrong or imperfect comprehension or utterance of musical sounds or symbols.

*Paramnesia*.—A perversion of memory. Words are here correctly expressed, but used with incorrect meanings. This condition may be due to defective education. But all of these wrong and altered states of word perception, conception or expression, in their medical sense, are dependent on brain disease, more or less.

Anosmia and aguesia are not often related to aphasia, and where there is no nerve center lesion to account for them, they are usually significant of other brain lesions than aphasia. But it is possible for these conditions to be associated and to impress themselves upon aphasia, for aphasia is a condition of many phases, as you see.

In all these cases above enumerated, the possibility of peripheral lesion must be excluded before diagnosing the existence of any variety of aphasia. General brain disease must also be excluded. Auditory apraxia or object deafness, characterized by non-recognition of objects by their sounds, as for instance of a dog by his bark or a bell by its note, may be important, with other auditory aphasias and have medico-legal significance.

Alalia, dyslalia and paralalia are sometimes used as synonyms for aphasia.

Aguesic aphasia, too, like anosmia, is more likely to be connected with graver brain disease than a Broca center circumscribed aphasia. Then also, aphasias often proceed from mastoid abscess, toxæmia and traumatic hemorrhage of the middle meningeal, as well as the middle cerebral artery, but the rapidly supervening coma and the muscular twitching and the opposite side paralysis which soon appear from this and from the veins also,

(thrombosis and venous bleeding,) show that the trouble is diffuse and not circumscribed aphasia. This state of affairs presages a graver termination than uncomplicated aphasia. Then there is the commissural or conduction aphasia or aphasia of conductivity, of the French, or the Leitungs aphasia of Wernicke, in which the speech centers appear not so much involved as the commissural fibers which connect them, where words can be read or repeated correctly, but are not connected with the idea or thing they properly stand for: *Commissural Aphasia*.—Leitungs aphasia.

Aphasia, you see, is a disease to be carefully studied, because of its numerous possible complications and many morbid associations elsewhere than at its special center in the brain.

Finally, today these many terms connected with aphasia, should be regarded as descriptions of phases, rather than distinctive definitions. Aphasia, in a broader sense, includes them all, and means as its derivation implies, a defect in the word or language conception and expression center in the brain, and in the neural communications therewith and therefrom. It is aphasia, whether it expresses itself in crippled or defective speech, or song, or sign, with the mouth or tongue or throat or hand or foot or face or finger, if there is no paralysis connected with these organs or members and, its most prominent forms are amnesic and agraphic or speech and written word expression defect. You will be expected to know the relations of aphasia in general, and these two forms especially, at the final examination. Naught will be set down against you if you do not remember the manifold relational and tributary or secondary forms or phases of aphasia.

## SECOND LECTURE.

*Paranakroasia*.—There is also a so-called form of aphasia called paranakroasia which, as its name implies, is an inability to understand anything. You will seldom have to differentiate this condition from idiocy or dementia, but its independent existence is possible, for all the avenues to the highest mind centers of the brain may be closed and yet sanity exist, but such is not ordinarily a clinical fact.



*Amnemonic Aphasia, Erinerungs Aphasia-Amnesia.*—An aphasia considered to be due to impairment of the memory. A transitory and temporary inability to call a needed word, but which is immediately remedied by suggestion of the lost word and the missing word can then be repeated. The power of word construction is not lost in amnesia, but only the transient power of word recall. The brain often evolves the word after a time without suggestion. This is a functional word memory failure and not a structural inability to formulate words in the speech center. It may be exaggerated to such an extent that words cannot be recalled and may then be due, as Ogle suggests, to some organic lesion of brain substance in the lower portions of the convolutions that surround the fissure of Sylvius and the Island of Reil, but it is generally functional and connected with brain weariness and defective nutrition or over vascular pressure, about the neurones of the speech-forming areas of the brain. It is not entitled to be classed as aphasia.

Aphasia amnemonica, aphasia amnesica and aphasia amnestica mean the same thing. Arndt described it as an aphasia, which he called partial aphasia, because it was limited to a certain number of expressions. He also described an universal aphasia, where the patient could not speak a single word, a complete logophlegia. In regard to the commissural or conduction aphasia, the Leitungs aphasia of Wernicke, the aphasia of conductivity of Charcot, to which we have just referred, not directly due to disease of the speech centers, but dependent upon destruction of or impediment in the conducting paths to or from the speech centers and other brain centers, the commissural fibers going to the speech center from other higher centers of the cortex are damaged or pressed upon, so that while words may be read or repeated correctly, their meanings are not properly comprehended: Correct, properly correspondent and usual ideas are not associated by such aphasias with the words the person may repeat correctly. The integrity of the mind area of the cortex should be suspected in this form of aphasia and closely interrogated diagnostically. This form of aphasic display is often a

feature of cerebral softening and may presage oncoming paresis or dementia.

*Anaudias*.—Bateman reminds us that “*Anaudia*” was a term which was used by the Greek physician for loss of speech, and the adjective *ἄναυδος* is employed by Aeschylus.

“αἰθερία κόνις με πείθει φανειδὸ,  
ἄναυδος, σαφῆς, ἔτυμος ἄγγελος.”

“Yon cloud of dust that chokes the air,  
A true, though tongueless messenger.”

And Broca's term, *aphemia*, was objected to by the Hellenists, as Bateman also informs us, because the modern Athenian philologists and physicians maintained that the term means infamy and not loss of speech. This same authority quotes the statement from M. Littre, that the term *aphasia* may be found in Homer as standing for mutism, and quotes this line from both the *Iliad* (xvii, 695) and *Odyssey* (iv, 704) thus “*δὴν δὲ μν ἀμφασίῃ ἐπεωνλάβε;*” but in this line *ἀμφασίῃ* means speechlessness caused by emotion, as Bateman thinks is implied, or emotional amnesia.\*

*Asymbolia*, including all forms of disturbance in the formation and comprehension of symbols, was proposed by Finkelnburg for aphasia in general.

*True aphasia* should always be differentiated from the following terms for conditions somewhat resembling it, which I take from Tuke's psychological dictionary. *Aphelxia* (ἀφέλωκ; I draw away). Term for absence of mind, reverie; German, *Zerstreutheit*.

*Aphelxia intenta* (ἀφέλωκ; intentus, intense). Abstraction of the mind in which the attention at the instigation of the will is riveted to some special subject, with consentient tension of the general expression: abstraction amnesia.

*Aphelxia otiosa* (ἀφέλωκ; otiotus, uncourted). The condition known as “brown study,” in which the attention is voluntary to the imagination; the muscles are quiescent: abstraction amnesia.

*Aphelxia socors* (ἀφέλωκ, socors, narrow-minded, thought-

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\*Bateman, 1890, page 151.

less). Absence of mind in which the attention wanders, and does not readily yield obedience to the will and certain words are not readily recalled.

*Aphémie* (ἀ, neg; φημί, I speak). A term originally employed by Broca for the condition known at present as aphasia. By some authors it is still used synonymously with it in its widest sense; by others, and especially Bastian, it is restricted to those cases in which the patient is speechless, even after having regained every other faculty which has any relation to speech. He is able to write and retain his mental faculties, while there is no paralysis of the articulatory muscles, for these can be used perfectly for all other movements. Aphemia has been observed after epileptic or apoplectic fits. (Fr., *aphéïme*).

*Paraophasia*, choreiac aphasia or paraphasia is also a disorder of speech in which wrong letters or words are substituted for the right ones, or the words are arranged in meaningless combinations and is like paraphrasia, included under the term aphasia. A defect of speech in which, owing to mental disorder, wrong words are substituted for the right ones.

*Paramusia*.—Perversion of the musical sense; a condition in which musical sounds are heard or uttered in a false or incomplete manner, or in which musical symbols are confused or omitted in reading or writing music, is a synonym for amusia.

*Paranomia*.—(γῆμειν, an allotment), assigning wrong names to objects.

Frederick Bateman, whose excellent treatise on aphasia or the "Loss of speech and the localization of the faculty of articulate language" published in 1870, one of the earliest systemic treatises on the subject appearing in the English language, in a later and revised edition says that he was deferred from a hasty reproduction of his work, "by the great diversity of opinion prevalent" concerning the value of aphasia. He therefore "preferred to wait till the horizon of scientific controversy was somewhat cleared and the tangled skein of medical physiology was partly unraveled" before bringing out a second edition. The horizon of scientific controversy respecting the psychological

relations and significance of the varying forms of aphasia, amnesia and related and yet unnamed states of speech defect are not yet finally and completely cleared. New phases, with additional diagnostic and possibly prognostic significance may be yet revealed, with a larger conception of the neurone relations and functions of mind and brain. Great progress, however, has been made in the study and comprehension of these speech defect states as related to brain disorder, through the researches of Kussmaul, Dejerine, Wernicke and Mann, together with the labors of Broadbent, Bastian, Hughlings-Jackson, Pershing, Starr and others previously named, together with the work of our late lamented friend Eskridge, of Denver, Colorado, neurologist to Arapahoe county and St. Luke's hospitals there.

In records made before Broca's discovery there is an account of an old lady who, after an attack of hemiplegia, preserved the general use of her intellectual faculties, but could only answer to whatever questions she was asked: "Saint Antoine," "Saint Antoine." This is post-hemiplegic aphasia.

In this instance the great surgeon Dupuytren, in whose clinic the case occurred, discerned dimly the aphasiac lesion which his eminent colleague, Broca, a little later made clear for him. Dupuytren considered in another case elsewhere recorded, the affection of the tongue (both as an organ of articulation and of taste), "as rather depending on a general affection of the brain, than on a local lesion of the nerves which endow the organ with the sense of taste and the power of motion."\*

Here are some additional records about aphasia which show how the discovery of clinical facts precede the discovery of pathological localization in our profession.

A French soldier was struck at the battle of Waterloo by a bullet on the exterior of the forehead, six or eight millimetres from the left eyebrow, and in the point corresponding to the curved line on the temporal fossa. He fell senseless, and remained two days and nights on the battlefield. After a period he was fit for active service, but it was discovered that he had lost the memory of proper

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\*Clinique, Hotel Dieu.



names and of some substantives, although all his powers of reasoning were unimpaired. He eventually died of phthisis, the fatal ending of so much hospital insanity, the singular mental defect referred to continuing up to the time of his death.

A gentleman, after an attack of paralysis, when attempting to pronounce words, always transposed the letters. For example, in endeavoring to say the word flute, he said tufle, puc for cup, gum instead of mug.\*

Winslow records several of those well-known instances also of persons who, after disease or injury of the brain, forget the language they have been most accustomed to speak and resort to speaking in their native tongue or in tongues acquired in childhood or long before the brain showed signs of failure, as if Nature attempted to rest herself by resorting to the use of unfatigued or uninjured speech center or speech group neurones.

After an attack of brain disease, a man had at his command only the first syllable of names, that is to say, he could not finish the pronunciation of any word, although he knew the first syllable of it. An old man forgot the names of persons, but appeared to recollect very correctly every evening a remarkable epoch of his life, although it had occurred a long time previously. When sitting with his wife he imagined he was at the house of a lady with whom, many years previously, he was in the habit of spending his evenings. He would then, addressing his wife, say, "Madam, I can not stop longer with you, for when one has a wife and children, we owe them a good example; I must return home." After this compliment he endeavored to depart. There was in this case an element of mental aberration, as shown in mistaking his wife for another woman, which might be designated as a form of amnesic insanity with partial verbal aphasia. Cases like these were once novelties in the literature of brain disease. They astonished our ancestors in medicine.

"The brain and its speech center lay hid in night;  
Science said 'Let Broca be,' and there was light"—

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\*Forbes Winslow, M. D., D. C. L., Oxon, London, 1861, *Obscure Diseases of the Brain*, etc., pp, 362-3.

Light of scientific illumination, or at least the sun shone brighter on a part of the functions of the left hemisphere than it has ever shown before. You know more as students than your ancestors did as practitioners. The record of advance in knowledge of speech defect failure has been remarkable, when we consider that a little more than a generation ago one of the ablest neurological writers of that day\* discussed this question, as follows:

There is upon record the particulars of a remarkable case of a patient who had, in consequence of an injury to the brain, forgotten how to read, but who was still able to write fluently and correctly. After two attacks of apoplexy, a man forgot his own name, as well as that of his wife and children and all his friends. He became restless, suspicious and very irritable. Eventually, his memory was partly restored. He was enabled, however, to repeat only the following expressions: "yes," "no," "much," "very well," "not at all," "it is true," "it is wonderful." These words, which he generally applied with tolerable accuracy, were almost the only ones he knew how to use.

After an attack of hemiplegia, a lady suffered from a similar defect of memory \* \* \* For example, instead of saying "I wish you good day, stop, my husband has just come," she would remark, "To wish good day; to stop husband to come." For a long time this patient could not count beyond the number three, but eventually was able to go to the number forty." The marvelous has become commonplace in speech defect disease and you know now, better than Broca did, the full meaning of his great speech center discovery. The discovery that was made on the banks of the Seine has been amplified three thousand miles away, on the border of the great Mississippi.

A study of these and similar diagrams and illustrations in the text-book, and the sections of Sachs, of Breslau, and others, showing the brains' association fibers, will serve to enlighten the mind of the student on the sources of

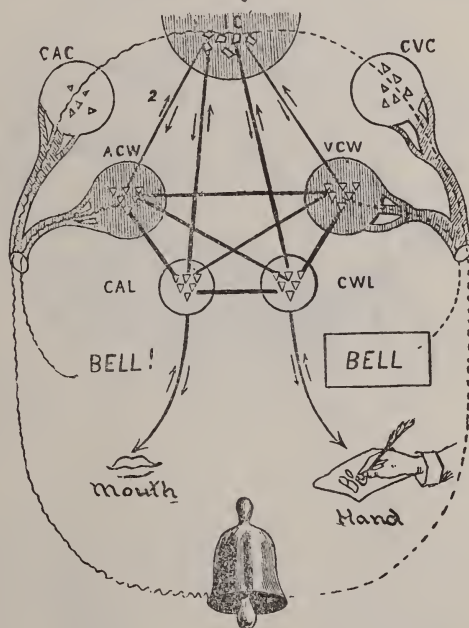
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\*Forbes Winslow, M. D., D. C. L., Oxon, London, 1861. *Obscure Diseases of the Brain, etc.*

speech conception, composition, expression and power, anatomically and physiologically considered. The study of defects and disease in these different areas and their connections with peripheral expression, will enlighten us as to the morbid cause of the various forms of aphasia.

FIG. I.

Charcot's Original Diagram of Oral and Written Speech Tracts and Centers.



I C, Ideational Centre.

C A C, Common Auditive Centre. C V C, Common Visual Centre.

A C W, Auditive Centre of Words. V C W, Visual Centre of Words.

C A L, Centre of Articulate Language. C W L, Centre of Written Language.

Irregular forms of partial aphasia should be cautiously differentiated from the restrictive and comparatively rare varieties of limited muscle strand oroplegias, connected with

paralyzed fibers of the obiculares and the mouth and lip angle levators, compressors, depressors and extensors, in nerve center exhausted professional elocutionists, singers and musicians who repeat, to excessive fatigue of brain and peripheral nerve connections, certain movements of the mouth and lips, as cornetists especially, and other horn players.

FIG. 2.

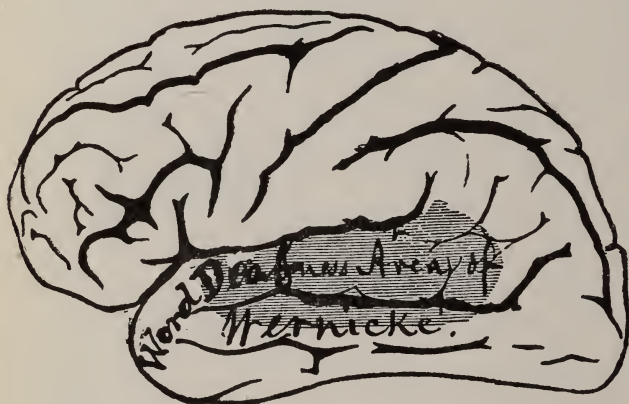


FIG. 3.

Dejerine's Language Zone Area

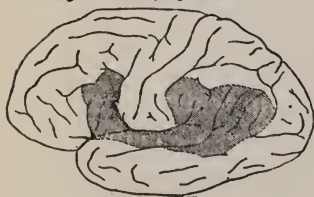
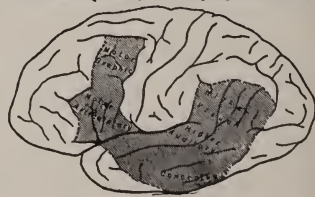


FIG. 4.

Mills' Conception of the Language Zone Area



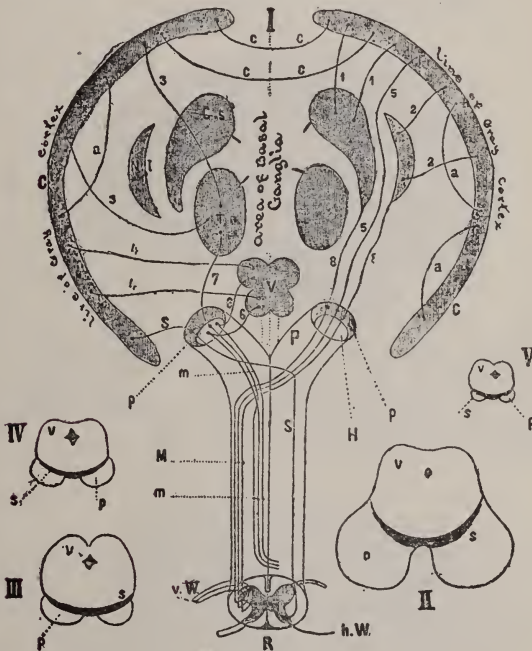
I have one such case under rest and treatment, who has not been able for over a year to play his cornet because of his blown breath escaping through uncontrollable wind apertures at the corners of his mouth. He has, in consequence, been obliged to give up the horn and rely on the violin for occupation and maintenance. Some



features of a sort of pseudo-aphasia are sometimes displayed in chorister's spasm of the vocal cords. The phe-

FIG. 5.

Meyner's Projection System of the Brain showing fibers going downward through the medulla and cervical cord (Description modified)



I, Scheme of the brain.—C, C, cortex cerebri; C.S., corpus striatum; N.L., nucleus lenticularis; T.O., optic thalamus; v, corpora quadrigemina; P., pedunculus cerebri; H., tegmentum; and p, crusta; 1, 1, corona radiata of the corpus striatum; 2, 2, of the lenticular nucleus; 3, 3, of the optic thalamus; 4, 4, of the corpora quadrigemina; 5, pyramidal fibres from the cortex cerebri (Flechsig); 6, 6, fibres from the corpora quadrigemina to the tegmentum; 7, 7, further course of these fibres; 8, 8, fibres from the corpus striatum and lenticular nucleus to the crusta of the pedunculus cerebri; M, further course of these; S, S, course of the sensory fibres; R, transverse section of the spinal cord; v. W., anterior, and A. W., posterior roots; a, a, association system of fibres; c, c, commissural fibres. II, Transverse section through the posterior pair of the corpora quadrigemina and the pedunculi cerebri of man—p, crusta of the peduncle; s, substantia nigra; v, corpora quadrigemina, with a section of the aqueduct. III, The same of the dog; IV, of an ape; V, of the guinea-pig.

### Lindis and Stirling's Physiology

nomenon of lisping will give you an idea of how a limited number of muscle fibers in the mouth muscles may fail to

work properly and afford you a conception of the possibility of those limited muscle fiber paralyses which display themselves in pen paralysis, piano-player's and engraver's cramp, etc. These cause pseudo-aphasic symptoms sometimes, a subject to engage our attention later.

FIG. 6.

### THE ASSOCIATION FIBERS



*A. Fibres proprias, between neighboring convolutions; B. Fronto-occipital fibers; C. Cingulum, or fronto-temporal, like a belt around the upper surface of corpus callosum; D. Uncinate, or hook shaped, fronto-temporal fibres; E. Inferior longitudinal occipito-temporal; G. O.T. Basal ganglia. F.F.F. cerebral cortex.*

The facial mimicry possibilities correspondent to mental conception and the facial, lingual, oral and laryngeal utterances under emotion or passion, show the many possibilities of aphasic and asymbolic expression under the dominance of cerebral disease related to the speech center of Broca, either through commissural fiber disconnections with this center or through damaged fibers of outward conduction, and Eskridge, Shaw and others have shown the importance of speech center and other psychomotor cerebral localization centers in diagnosis of intra-cranial disease.

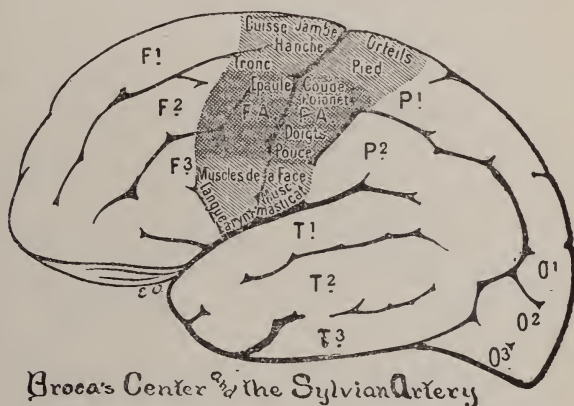
The more closely we study nervous disease involving the brain, the more we discover the language and idea expression powers have generally intimate relations to their perfect localization and diagnosis.

(The copy of the original cast of Broca and Le Bon's

teased out illustrations of the course of the fibers of the cerebrum which I have heretofore used before the class in illustration, would help us to the present study, but they are not just now accessible in form for presentation here.)

# THE SPEECH CENTER IN RELATION TO OTHER CENTERS OF THE BRAIN.

FIGS. 7 and 8.



Broca's Center and the Sylvian Artery



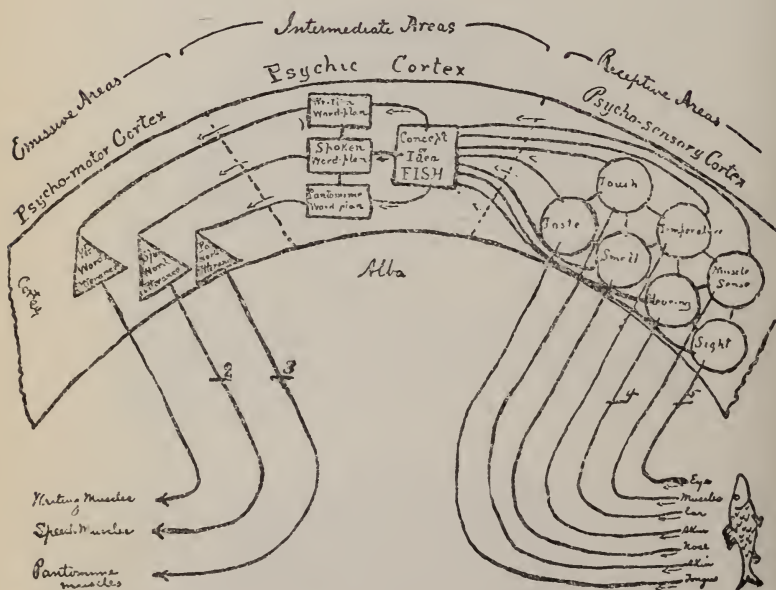
(TESTUT : Anatomie).

1, tronc de l'artère sylvienne. — 2, artère destinée au lobe orbitaire. — 3, artère frontale inférieure (artère de la circonvolution de Broca), et, 4, artère frontale ascendante, naissant par un tronc commun 5-6; 5, artère pariétale ascendante.

These illustrations kept constantly before the eye of the student serve to impress upon him the mechanism of its various forms.

## LANGDON'S SCHEMA OF COMMUNICATIONS IN THE APHASIAS.

FIG. 9.



These and other apropos illustrations may be found, with further explication in the author's *Neurological Practice of Medicine*, and in other home and foreign text-books and monographs.



# MIXOSCOPIC ADOLESCENT SURVIVALS IN ART, LITERATURE AND PSEUDO-ETHICS.\*

By JAS. G. KIERNAN, M. D.,

CHICAGO.

Fellow of the Chicago Academy of Medicine; Honorary Member Chicago  
Neurological Society; Foreign Associate Member of the French  
Medico-Psychological Association; Professor of Neurology,  
Chicago Post-Graduate Medical School.

THE great psychologic romancists, Balzac† and Flaubert,‡ have dealt with this theme. George Eliot,§ according as Clouston|| has painted in Gwendolin Harleth, a perfect picture of female adolescence. Thackeray's Blanche Amory¶ is a still truer portrait of the arrested type to which the two belong. The arrested development of John Hunter and Emerson, the evolution by atrophy of De Moor, the degeneracy of ordinary parlance in its mixoscopic adolescent aspects, is most vividly pictured by Zola, in the Rougon-Macquart series. The crudely occult symbolism of primitive man which finds hidden expression in the secret society and open in the ceremonial churches, spoils the masterpiece of an unstable artistic neuropathic, Claude

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\*Continued from *Alienist and Neurologist*, August 1903.

†Unknown Masterpiece: A Distinguished Provincial at Paris.

‡Sentimental Education.

§Daniel Deronda.

||Mental Diseases. Third Edition. Page 579.

¶Pendennis.

\*\*His Masterpiece: Stomach of Paris.

††L'Assommoir.

Lautier, who is the son of a female unstability forced into inebriety by malign environment. Claude's father is an erabund degenerate of the tramp type. Claude has a labor-fanatic brother,\* a murderously algophilistic brother† and a harlot sister.‡ The algophilistic brother has obsessions which recall Emerson's

Demon Spider that devours her mate,  
Just freed from her embraces.

Claude, dominated by the crude symbolism which survives from the fetichism of primitive man, mars a beautiful "free air" landscape by incongruous nude female figures, not from insanity but from the puerile analogizing tendency present in children, savages, degenerates, hysterics and lunatics. In these, incoherent conceptions rise from the unstable subliminal consciousness to destroy logical association. A mediocre "business" painter assimilates the "free air" conception, eliminates the symbolic obsession and founds a school.

Claude, under symbolism, becomes mixoscopic when dominated by coarse views of sex relations, which render the ideal an inhibitory obsession. Such obsessions are far from infrequent in the practice of genito-urinary surgeons and neurologists. W. A. Hammond§ had under care a sexually vigorous, seemingly healthy, well-developed athlete, who found himself impotent on his wedding night. Desire vanished at the thought of profanation of his pure, beautiful wife by such vileness as coition—she was too good—of too great delicacy for a vile animal like him. He could not desecrate her beautiful body by such a vile act. Here the mixoscopia actively algophilistic as to mistress was passive as to the wife. Similar conditions are far from rare, but the two states do not always have the inhibitory influence here exhibited. Active and passive algophily are, as Havelock Ellis || and Stefanowski ¶ show complementary, not opposed emotional states.

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\*Germerst.

†Beast in Man.

‡Nana.

§Impotence, Page 82.

||Love and Pain.

¶*Alienist and Neurologist*, 1891.

Even de Sade, the arch type of algophily, cannot, as Eulenberg\* has shown, be regarded as a pure, active algophilist. Havelock Ellis† goes too far, however, when he claims that no merely blood-thirsty vampire (as de Sade is usually portrayed) sane or insane, could have retained the undying devotion of two women so superior in heart and intelligence as his wife and sister-in-law. An active algophilist may be an ideal to a passive algophilist, as I have elsewhere shown‡. The command to Christians: Bless them that despitefully use you, tends to create and intensify such an ideal. This element appears in Actea, who adored Nero after his downfall. De Sade's sister-in-law was said to have participated in the cantharidean orgie, which de Sade was legally charged with just ere the revolution. ||

It is clearly evident, however, that, as Havelock Ellis remarks, had de Sade a wanton love of cruelty, it would have appeared during the days of the Revolution, when it was safer for a man to simulate blood-thirstiness even if he did not feel it, than to show humanity. But de Sade distinguished himself at that time, not merely by his general philanthropic activities, but by saving from the scaffold at a great risk to himself, those who had injured him. Apart from the organically morbid twist by which he obtained sexual satisfaction in his partner's pain, a craving, which was for the most part only gratified in imaginary visions developed into an excessive extent under the influence of solitude, de Sade was simply, as those who knew him, "an amiable, mauvais subject," gifted with exceptional intellectual powers. De Sade and his like should not be confused with men of whom Judge Jeffries is the sinister type.

It is necessary to emphasize this point because de Sade is really a typical instance of the group of perversions he represents, and when it is understood that pain only, and not cruelty, is the essential in this group of manifesta-

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\**Sexuale Neuropathie*, 1895.

†*Love and Pain*.

\**Alienist and Neurologist*, 1891.

‡*Note to Stefanowski, Alienist and Neurologist*, 1891.

||*Taxii*: Prostitution.

tions, their explanation is clear. The masocinist desires to experience pain which must be inflicted in love, the sadist desires to inflict pain, but often desires that it should be felt as love. How far de Sade consciously desired that the pain he sought to inflict should be felt as pleasure, it may not now be possible to discover, except by indirect inference. Confessions of sadists show that such a desire is commonly essential.

In the self-pity cant of Rousseau's *Confessions* is often evident an enjoyment of pain inflicted on others like that frequently found in the self-confessed, vile sinner of religious conversion.

The general insincerity of the confessions is evident in the slurring over of obligations to others. Rousseau felt most malignantly to Voltaire, yet he owed a great debt to the *Philosophic Letters*. These, as Grahame shows, awakened Rousseau's mind to literary standards and methods.

Rousseau found a lodging in shabby quarters in Paris. His letters of commendation did not miss fire, but he obtained chiefly compliments and invitations to dinner, where his self-conscious awkwardness made guests smile and servants sneer.

Paris was at this time graced by the greatest existing figures in French literature. Voltaire was the center of a host of admirers; Fontanelle, cheerful, chatty and cynical at ninety, was trotting from salon to salon; D'Alembert, five years Rousseau's junior, already famous, was, while still living with his glazier adoptive mother, frequently at the salon of the actress mother who had abandoned him in infancy. Montesquieu was outlining the *L'Esprit des Lois*; Buffon was compiling the natural history he completed half a century later; Diderot, after seven years in Paris, was still a Bohemian. These men were sowing Revolutionary seed which Rousseau helped to ripen into such fungus luxuriance.

Their satire sapped the existing decrepid religious and political autocracy. Buffon timidly attacked, with a semi-withdrawal, worthy of Rousseau's Savoyard Vicar, the rigid



special creation dictum with which the Jesuit Saurez managed to wash out of Protestant and Catholic doctrine Augustinian evolution.\* D'Alembert used mathematics as a satiric weapon in like manner as Montesquieu did law, for as Macaulay punningly remarked, Montesquieu's work is rather d'esprit sur les lois than L'Esprit des Lois. Rousseau, contrived to bring his musical system before the Academy of Science. A committee appointed to investigate, made a report which led the Academy to investigate and to grant a politely worded certificate to the effect that what was useful was not new and what was new was not useful. This report and Rousseau's clamor drew the attention of Fontanelle, Marivaux and Diderot to Rousseau, who was almost a beggar. A kind hearted, paranoiac priest recommended Rousseau to the female plutocrats, who were then the rulers of France. In the main Rousseau had great success, marred only by his lady killing mentality, which led him to view courtesy and kindness as a tribute to his attractions. This caused severely just rebuffs.

The dingy hotel where Rousseau lodged employed a seamstress, who was the butt of coarse jests from ecclesiastics and other guests and was nagged by the landlady. This girl, who looked simple and was dull, seemed modestly reticent because she had nothing to say, never read, could not count, was quarrelsome, sly, deceitful, coarse and scandal-loving, accomplished a union with Rousseau which lasted his long life, although her harpy mother and sponging relatives likewise lived on him.

Since Rousseau's acme of the ideal of human happiness was to be at the feet of an imperious mistress, to obey her caprices and beg her pardon, Therese LeVasseur fully realized this idea whence the long union, whose permanency contrasts with the brevity of that of de Musset and George Sand. De Musset became secretary lover to George Sand and went with her to Italy. This role, Rousseau played so successfully with Mme. de Warren, de Musset could not fill; business and sentiment rarely mix

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\*Osborn: From the Greeks to Darwin.

well. Carlyle remarked that even Mirabeau\* had quarrels with his female bookseller, Dame Le Jay, so ultra complaint otherwise.

Such unions succeed, if the algophilies mingle or both parties are normal and altruistically affectionate. In de Musset, active algophily (evident in their joint pornographic production *Gamiani*) was intense even to the Jeffries point; he enjoyed spoiling dresses, assumed as an attraction when such destruction hurt the wearer's feelings. He had adolescent pessimism to the full German *Weltschmerz* pitch, as witness his semi-autobiographic *Child of the Century*. This, which exhibits intense volupty of self-pity type, is a swan song of aborted manhood. George Sand was healthily sexual, had but little pessimism, little, if any mixoscopia and a deep sense of self-dependence. She and de Musset, who required a female *Actea*, were pre-eminently victims of incompatible temperaments.

Working for the stage, and evidently still under the influence of the "Philosophic Letters," Rousseau adapted Voltaire's "Princess de Navarre." Rousseau's comedy, *Narcisse*, had been accepted by the *Theatre des Italiens*, but not acted. A musical piece was acted at the opera house, but not accepted, as the critics denounced it as nothing new or original. The resulting controversy made Rousseau secretary to a female coterie of those plutocrats, whom the crushing of aristocracy by Richelieu and Mazarin had made dominant. *Sinecures* which ennobled were then in France, as now in San Marino, a source of public revenue. Caron of Figaro fame became Beaumarchais by purchase of such positions. The bourgeoisie cant of Rousseau attacking the cultured made him welcome to the former general dames, who mimicked Mme. de Pompadour's philosophic and literary pretensions, despite his awkward compliments and sullen manner. He was past master in the platitudes so dear to the bourgeoisie heart.

Rousseau, dining with Condillac and Diderot, unconsciously assimilating and distorting their ideas, obtained through them the musical part of the great *Encyclopædia*

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\*French Revolution: Chapter iv., Page 227.

which made him a dictator on French music whose influence was beneficial.

Despite M<sup>lle</sup> de Trenchon's abandonment of her illegitimate son, D'Alembert, he rose to prominence. Evidently dominated by this example, by a mixed, active algophilistic desire to torture Therese, through her feeble maternal affection, and to retain it for himself as well as to shirk responsibility, Rousseau, when Therese bore a babe, sent it to a foundling hospital with feeble identification marks. This happened five times in succession, the marks being latterly omitted. Rousseau's defense of this performance is cant set to elegance worthy of a Joseph Surface. The plea, as Graham remarks, is practically that of the French advocate defending a paricide who cried: Pity my client, for he is an orphan! Rousseau cries, "pity me, for I am childless!"

Rousseau herein felt that mixture of passive and active algophily found in the mixoscopia of arrested adolescence, which joins the ecstasy of the martyr to the voluptuosity of the sworn tormentor. With predominance of the last, mixoscopia often appears in women of the type Tennyson portrays:

Women or what had been those gracious things,  
But now desired the humbling of their best,  
Yea would have helped him to it.

Such humiliations have far from rarely been the subject of forensic inquiry. Tardieu\* has analyzed cases in which mere children were subjected to such humiliations for the delectation of servant girls and their paramours.

Under the pretense of securing the sensation of an abductor for literary use (but evidently from an active algophily) Viola Larson (under the aegis of an alleged Genevieve Meredith Mischief Club) secured male and female neuropathic accomplices in the abduction of a young girl, which failed.† Stead‡ found men to whom the shriek of the violated virgin was the acme of delight. Such tendencies are observable in Parrhasius, who was styled the parnograph,§

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\**Attentats aux Moeurs.*

†*Medicine*, September, 1903.

‡E. C. Spitzka, *Jour. of Ner. and Men. Dis.*, 1888.

§Spooner's *Anecdotes of Painters*, v. 1, Page 151.

and execrated for his torture of a slave model for artistic purposes.† In inverts artistic aptitude are found in about double the proportion of the ordinary population. In other sexual distortions the proportion is probably the same.

The obstrusiveness of puberty, the forced impudence of adolescent bashfulness force artistic aptitude to the foreground in the unstable, while conventions restrain it in the normal. Forced growths are always weak and fungus-like.

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†Ellis, *Psychology of Sex*, v. 1

*To be continued.*

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## NOTE ON AUTOMATIC RETROSPECTIVE SLUMBER.

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By CHARLES H. HUGHES, M. D.,

President of the Faculty and Professor of Psychiatry, Etc., Barnes Medical College, St. Louis.

**T**ILL a better term suggests itself I wish to call attention of my medical brethren to a mental condition in some extremely neurasthenic persons in which the thoughts of the day pass again through the mind at night after sleep sets in, thoughts that are recalled after waking, precisely as those of the preceding day, the mental ground of the previous waking state having been gone over again by the mind in a dream. This has recurred many nights in succession in some of my cerebrasthénics, before the brain was brought under control by nightly chloral hypnotics and daily brain quieting, peptonated bromides and head galvanizations.

This clinical experience has come under my observation chiefly in unmarried neurasthenic women between 18 and 28 years, without special mental trouble or strain such as develops insomnia in older persons. It is a condition of automatic mental vision in the somnolent, closely allied to insomnia and yields to treatment through the same therapeutic resources.

I make brief mention of this experience in the hope of seeing the subject further elucidated from sources of eminent experience among the readers of the *Alienist and Neurologist*. For a long time these cases escaped my attention because I regarded them only as ordinary dreaming, but they differ from dreaming in the fact that the experience of the previous day is traversed in repetition pre-

cisely as it has been in the waking state, though the patient is unconscious of the fact that he was not awake when going over the ground showing the continued, persisting action of the same neurones as were occupied during the waking hours. Other cases have gone over the daytime mental process in this apparent sleep state, and then gone farther in a later dream and recalled the whole on awaking.

One patient kept this sort of slumber dreaming going on for over a week before I accomplished its cessation by the static daily breezes, constant current cephalic galvanization and internal medication and said the trouble had continued for about ten days in all. She was fond of society and had daily company afternoons and evenings, which I enjoined her to discontinue, pending her treatment and until recovery.

The condition is plainly a brain tire symptom, similar in causation to autopsychorythmia, which I have heretofore described. The last patient in my practice whose symptoms have inspired this note, is a young, extremely nervous unmarried woman, who has lost weight, pain and fullness in back and top of head, suffused eyes, feels constantly fatigued; had before coming under treatment sluggish bowels, coated tongue, slight tremor, jerky in limbs and sat ill at ease after an hour in company and had vertiginous feelings, which were neither epileptic nor epileptoid seizures. Though better she still has these symptoms at times, after prolonged social strain of evening company. Her catamenia are regularly recurrent between three and four days each month. She has not paraesthesia, but is paraesthetic and hyperalgesic; no organic physical lesions have been discovered; she has slightly defective near vision, for which she wears glasses. She is a blonde, tall of stature and normally sized frame. Her type of neurasthenia is of the Van Deusen, rather than the Beard type, as she is not troubled with Beard's characteristic morbid fears, but she is easily fatigued by company and is timid and irresolute.

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## OUT-DOOR SPORTS FOR THE INSANE.

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By J. T. W. ROWE, M. D.,

First Assistant Physician, Manhattan State Hospital, East.

**S**LOWLY and surely, the Custodial idea which has for so long dominated the hospital treatment of the mentally afflicted, has given place to the Remedial, and in like manner, the Medicinal is, to a rapidly increasing extent, being supplemented by the Recreative; and more particularly by out-door games, sports and exercises. Confinement of a prison-like character has long since ceased to be regarded as the sole efficacious method of dealing with those whose minds have become unbalanced. Compassion, not coercion, is the motto of the modern alienist, and it is a simple truth, though none too often recognized, that the officers of the hospitals think with the heart as well as with the head. How best to cure the patient; how to secure for him the maximum of comfort and pleasure during his residence period; how to make the institutions under their control veritable founts of healing, rather than places of banishment and restraint, form the earnestly pursued aim of hospital men from the service worn expert to the latest interne.

Twenty-five years ago witnessed the introduction of regularly organized out-door sports for the patients, in the extensive grounds of the Ward's Island institution, where regularly organized out-door work had already been made a feature. The remarkably beneficent results which flowed from that departure have exceeded in extent and degree the most sanguine expectations, and similar hospitals have been thereby encouraged to follow that abundantly

successful example, with gratifying results to the inmates, and, through them, to humanity. To convey some idea of the nature and extent of the health-bringing sports and exercises referred to, is the main purpose of this paper, and the hope is cherished that it may in some measure contribute to a better appreciation of the therapeutic value of the Out-door Recreative as a factor in the cure, or alleviation, of mental, as well as physical, maladies. Phenomenal, indeed, have been the results obtained in conspicuously difficult cases. In every instance of cures, the happy issue has been greatly accelerated by the open-air agencies, and in a multitude of cases no cures would have been achieved without the aid of these channels of healing.

At the Manhattan State Hospital, East, Recreation, Diversion and Curative Employment have been, if not elevated to a science, at least reduced to a system, as vehicles of healing for the deluded and the morbid. In paying tribute to the value of athletic exercises and work one must not be understood as slighting medicaments. These have their important part to play in the work of alleviation and restoration. They do not and cannot, however, supersede fresh air, exercise and sports, as curative agents, but are rather a complement of the others.

The first essential for the proper carrying out of the Recreative principle of treatment is abundance of elbow-room. In that respect our hospital is exceptionally favored; possessing as it does some 125 acres, embracing the most delightful stretches of lawn with surroundings of the most pleasing character. Two hundred yards away is one of the busiest waterways in the world. Over it passes a continuous panorama-like procession of large ocean steamers, ships of war and a perfect flotilla of pleasure craft. The rag-time melodies which come wafted from the excursion steamers, while not quite in accord with the canons of refined musical taste, appeal to the emotions, and these hold a not unimportant place in the production of our happiness.

On every day of the week the patients are marched out to the exercise grounds. Fully 50 acres of land are utilized as a foot-ball field, a half mile circular race course, and



baseball diamond, and 20 acres are devoted to exercising, strolling about, etc. Every patient not bed-ridden is marched to the athletic field. The decrepit are placed in the shade of the nearest trees; the strong and active disport upon the green, and arrange themselves for the numerous field sports which are soon to entertain a thousand or more of the less athletic. In this connection it should be said that from the moment of their arrival at the hospital, the patients are so distributed among the wards as to secure their getting the maximum possible share of sports, games, etc. Constant efforts are made to provide congenial employment for them. The slogan at Ward's Island is diversion, and from the beginning they find themselves placed in the most healthful surroundings, delightfully refreshing to eyes wearied of gazing upon bricks and mortar. During the heated term when the city lies almost prostrate, the sun a ball of brass, vitality at a low ebb, and the overworked populace of the slums on the verge of madness, how relatives of patients must envy the fortunate husband, brother, or other member of the family, recently removed from such scenes, who is now resting under delightful shade trees, drinking in long drafts of fresh air laden with the perfume of thousands of flowers, plants, and shrubs; the mind soothed by resting upon acres of the greenest turf, varied by the sparkling sunshine on the adjacent waters a mile in breadth.

The hospital band with its military instructor plays in a commanding position, and with dash and precision furnishes a repertoire extending from classical to the most languorous concert-hall melodies. A sharp pistol crack breaks the air, and the sports have begun. The base-ball nine, reveling in the vernacular of the game, with the greatest abandon, make the most astounding runs and stops; a *faux pas* eliciting the most derisive yells from their hundreds of "rooters." Some of the slowest convalescents after a few days of the excitement of the game show an astonishing improvement. Foot-ball is contested vigorously on the grid-iron, as many as six balls being seen in the air at one time. The strong and active are enthusiastic; the quiet

melancholiac emerging from his gloom delivers a few kicks, and glances about furtively in a deprecating sort of way as if ashamed of his levity, while the poor neurasthenic with his morbid drug-craving unexpectedly delivers a spasmodic kick at a passing ball and is surprised at his newly awakened agility. A few days of such play and his disturbances of digestion yield and finally pass away. Foot-ball greatly benefits that class and adds to their power of inhibition. A missed kick, or sudden collision, gives the opportunity of sharpening their wits upon each other. On another fine greensward the ancient game of lawn bowls attracts the more contemplative and intellectual of the chronic class. The quoit field also has its loyal adherents, and no game ever drew a more interested crowd than this, vieing with each other in laying the rings up against the pin, and critically watching the measurements. Ten times the number of the contestants are interestedly watching the games being played. Nearly all show a desire to take part, and when appealed to in the right spirit will co-operate heartily in what leads to their cure. Experienced and smart attendants, well trained in what is expected of them, direct the energies of the patients into proper channels, and all things are under close medical supervision. After the dinner interval the sports are renewed. The bowling alley with its spotlessly kept alleys is also crowded with enthusiastic players who show the greatest interest in the game.

After a few weeks of such healthful surroundings and sports a favorable change is noticed, The patients become well set-up, their faculties are quickened, their steps become more bouyant, and their eyes take on a clearer and brighter look. Even the most chronic show an improvement in weight. The talkative and disturbed become subdued. They sleep soundly, and hypnotics are but rarely required. To this steady round of stimulating exercise much of our good results must be attributed. In several instances restoration to mental health and vigor has been achieved with astonishing rapidity, and of course the more speedily we can restore patients to their families and avocations the better we are pleased.

On every public holiday a general field day is held, July 4th, Independence Day, being a red-letter day. The splendid grounds and tracks are swept, watered and rolled; edges are cut straight as an arrow as far as the eye can reach, and the entire course is marked out with flags, the huge State flag proudly topping all. Everybody is in gala array. The morning is given up to the national game—base-ball; one wing of the hospital against another; and a fifty yards' swimming race in the large salt-water bath. At two p. m. the field events take place. These range from a hurdle race to the quarter mile straight, then follow in rapid succession a one hundred yards dash, high and broad jumps, tug of war, potato race, wheelbarrow race, putting the shot, and throwing the baseball, etc., etc. I doubt if these sports can be surpassed at any hospital in the world. Fully 2,000 patients and several hundreds of their delighted friends and general spectators, watch the events with enthusiasm; and the keen attention of foreign visitors warns us that "There's a chiel amang us takin' notes." The high ground is black with spectators, handkerchiefs flutter, and deafening shouts greet some desperate finish, as the winner with a "spurt" forges to the front. Excursion boats salute by dipping their bunting, blowing their sirens, and cheering the contestants. The patients cheer themselves hoarse over some favorite, and an affectionate nickname is shouted after the elated winner, as the tape is breasted and carried forward amid deafening applause. The sack and obstacle races evoke laughter, and good humor and merriment are abundantly evident everywhere. Huge cans of lemonade and baskets of cake are passed along the lines, and speedily emptied, the stirring music from the hospital band keeping everybody at quickstep. Every winner receives a prize, and handsome flags are presented for team work. Programmes, printed by patients, are distributed among their friends as souvenirs. The behavior of all is most exemplary. The literary man and the long-shore-man strive for mastery in sport in perfect democracy, for, "On top of the turf and under the turf, all men are equal."

Restful sleep naturally follows such healthful diversions and no sleeping draughts are required. My song, as you see, is of the open air, and, to parody the balladist who asked to be allowed to write the songs for his country and he cared not who made its laws, let me have the flesh-pots and exercise grounds, and I care not who has the medicaments. Restoration is to be found hard by the kitchen and athletic field.

On five days of the week the patients have sea-bathing, diving, and gamboling galore, in the bracing sea-water let in fresh from the East River. Being in the open air and deluged with sun-shine, the bathing's great tonic and calmative cannot be over-estimated. The tub and spray are very flat in comparison. Some hospitals are content to state that "outside exercises have not been neglected;" but that is not enough. These should be vigorously exploited. A hospital to-day can no more afford to neglect athletics than can a college. What would be the fate of that college? Abolish the "airing courts," "yards," "spacious shelters;" nothing but pens in truth. Seed down the farm-lands to green turf, and let the patients run over it in the glorious sunshine. Every hospital has facilities for greater liberty if it cares for it.

When the weather prevents out-door exercise, the big gymnasium is filled. The vaulting horse, rowing machine, trapeze and shuffle board, all draw an eager crowd awaiting their turns. The gymnasium accommodates about one hundred, and the patients are taken there in relays. Feats of daring are not encouraged, but in our cosmopolitan population are old stars whose performances have caused thousands to hold their breath, and who like to entertain their fellows with exhibitions of their agility. The debilitated and frail become wonderfully hardened and active. The lethargic, stupid young convalescents brighten rapidly, and show marked improvement in their physical and mental co-ordination. Those too heavy for the sprints and timber-topping, are in their element among other opportunities afforded them in the gymnasium. We have many other features not set forth here. In the evenings are entertain-



ments, frequent and varied, with two hours' dancing twice a week, at which the amenities are observed with the punctiliousness of a Sir Roger de Coverly. Not a dance is missed. There is a constant passing of *bon mot*, and jollity prevails everywhere. Chess, bagatelle, billiards and draughts amuse a large number, every table being crowded. Concerts and minstrels fill in many a winter evening, and occasionally with rare charm a violinist, whose magic bow has transported thousands, will play some beautiful old air recalling scenes of happier days, and awakening hope in the breast of the despondent.

The wider knowledge now prevailing regarding such a system as is practiced on Ward's Island has tended to foster confidence in public hospitals; and has helped to remove the stigma that has so long rested upon asylums for the care of the mentally afflicted, and has immensely reassured the public mind. Relatives of those suffering from disorders of the mind no longer hesitate to commit their loved ones to the care of such an institution as this; rather do they strive to have their afflicted ones brought within its healing borders. The extension of this most beneficial and delightful system should be encouraged and developed in all hospitals. Rational, scientific treatment should be substituted for that merely custodial. The millennium is not yet here, but things are better than they were and advances continue to be made. Desperate escapes are things of the past. The incorrigible glass-breaker is becoming a *rara avis*, as we use larger windows which let in a flood of sunshine. Out-door sports create healthy fatigue, and "sleep, gentle sleep" which was denied to the lean and hungry Cassius, is the reward of those who participate in them, and the success of these "Olimpick Games" with their "harmlesse mirth and jollitie" ought to be an encouragement to other hospitals at home and abroad.

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# OUTLINES OF PSYCHIATRY IN CLINICAL LECTURES.\*

BY DR. C. WERNICKE,

Professor in Breslau.†

## LECTURE TWENTY-SIX.

Presentation of a case of alcoholic delirium. Form of disease. Etiology. Diagnosis. Treatment. Pathological anatomy.

**T**he plumber H.,‡ whom we have here, appears collected, self-possessed. He responds promptly and with apparent deliberation to questions asked him. On request he gives a summary of his life, tells of his service in the army, where he served, how he had gotten on, his captain's name, the non-commissioned officers', a number of his comrades', where he had then found work, what business he is now engaged in, when and whom he married, how many children he has, their names, where he lives, also the ordinary knowledge expected of him he has at command. He knows the principal data of the last war, knows of Bismarck, Moltke, of the three Emperors, of his part in the election, shows he is orientated as to the streets of the city, can approximately describe the course of the Oder, etc. From his calm manner of speech and deliberate answers it is remarkable that he does not know how he comes to be here. He believes that he has been here only today. What sort of a place is this? A government office on the railroad in

\*Continued from *Alienist and Neurologist*, Vol. xxiv. No. 3.

†English by Dr. W. Alfred McCorn, Supt. Elizabeth General Hospital, Elizabeth, N. J.

‡Discharged recovered eight days after the presentation.

Upper Silesia. Whether he knows me? Yes, I am the station agent or railroad inspector. For what purpose is he here? To give an account of himself and possibly be employed. The patient promises earnestly and sincerely to always do his whole duty. Who are the audience? Government employees who will take up the matter. The resident physician who has treated him before, is presented: "He knows the gentleman very well, he is the railroad doctor, who treated him for rheumatism some time ago and has always cautioned him about drinking." Patient's attention is called to his clothing. "It is hospital clothing ordered by the physician, because the smell of whiskey clings to his own clothes and this is bad in the work." On inquiry as to the use of whiskey, the patient admits he drinks 50 cents worth daily, but swears he is not a drunkard.

An examination then reveals a complete misconception of the present situation and in the way of ideas most patent to the patient from his daily occupation. The result of the examination may be epitomized, that we have a patient who, in contradistinction to an almost perfectly retained autopsychical orientation (until the last two days) presents extreme allopsychical disorientation.

You will now notice that the attentive, collected and perfectly alert manner of the patient changes as soon as left to himself. He begins to look about, arises, stoops over as if looking for something, seems to pick up objects, goes to the wall, passes his hands over it, pushes against it, in short he appears to be completely abstracted and confused. A call suffices to restore his attentive manner and bring him back to his place.

We ask the patient if he knows the picture on the wall (a portrait of Th. Meynert, with his autograph); he answers promptly, it is the Emperor Frederick, and the subscription

Theodor Meynert (autograph)

Med. Dr. Theodor Meynert,

k. k. Hofrath o. ö. Professor a. d. Universität Wien, etc.

gestorben den 31. Mai, 1892.

He reads:

“Theodor Mehlquot  
 Paul Theodor Theodor Mehlquot  
 k. k. Kauf a. u. k. k. Prcesser a. d. Unterurdisch in Wunde  
 abgeordneteden.  
 gesalbten 31. Mai, 1892.”

If we cause him to look at the wall again closely and ask what he sees, he replies: “Soldiers. The Emperor is there, they are about to drill.” If he hears anything: “Hurrahs”. On inquiry, and while looking at the wall closely, he describes whole scenes alleged to occur. Suddenly he begins to laugh: “Bismarck rides on a porcupine.” We now point to the floor, he shall see what is moving there: he stoops over and begins to collect ants and mites, which he then empties from his hand on the table. If his attention is now directed to the top of the table he claims to see horses and Krupp guns in diminutive form. From the patient’s movements it may be assumed with certainty that he believes in the reality of what he describes. With noteworthy lack of judgment he passes over the contradictions, which must be conspicuous to the normal person, so if asked in the description of the military evolutions about how far away the army is, he replies promptly about eight meters. On being requested to go nearer, he approaches the wall about two meters away and then stops, because he can go no farther. Nothing definite as to the kind of obstruction is to be gotten from him.

If we will name the attribute of the sense of perversions we see the patient has, their similarity with experiences in dreams must be at once evident. As in dreams it is not a matter of hallucinations of several senses, and in such form that whole events are seen, heard, felt by the patient with the perfect semblance of reality. We have termed this special kind of hallucinations dream-like owing to the similarity to experiences in dreams,\* and learn that they occur especially in those states in which a clouding of the sensorium, akin to sleep,

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\*See *Alienist and Neurologist*, Vol. XXIII.



is observed, therefore they belong to the dazed conditions. Does such a dazed condition exist in our patient? For the times the patient is left to himself, this question must be answered in the affirmative (in spite of having his eyes open and being able to move), but the answer must be entirely different for the time the patient is fully awake and attentively answers every question asked him and, as he asserts on inquiry, is subject to no false sensations. If at such times, which may be extended at will, he still completely mistakes the situation, we are of logical necessity led to the conclusion, that the evident assumption, the disorientation is due to the false sensations, does not apply, especially when we state that the misconception of the situation is of a very stable character and is of the same content for hours and days, and the false sensations are subject to constant change. It might perhaps be conjectured that the sense organs themselves functionate defectively, e. g., a demonstrable disorder of sight and hearing exists and thus the disorientation is induced. But irrespective of the fact that the analogy with all other mental diseases contradicts it, in special cases it is possible to directly prove, that such a disorder does not exist, and in our patient it may be established that he has normal keenness of sight and hearing. The patient is then an instructive example of disordered secondary identification, of which we do not have frequent occasion to observe the process of this identification disorder.

We will have to place the symptom we see here in rare purity, under psychosensory anæsthesia, or paræsthesia of our scheme. The allopsychical disorientation is readily comprehensible as a necessary consequence of this identification disorder. The mistaking of persons and situations happens according to the standards set forth in the introduction\*, and doubtless belong to the province of optical illusions. But still the symptom of defect, the non-recognition, is very noteworthy; for the concepts of the hospital, clinic, auditorium are perfectly clear and familiar to the patient—as might be established later by an experiment.

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\*Allenist and Neurologist, Vol. XXIII.

As you will have noticed, we have here a typical case of *delirium tremens*. Therefore we will not err if we ascribe the symptoms described above to the toxic effect of alcohol. This toxic effect may naturally be manifested by the nerve elements being irritated or paralyzed. Evidently here a degenerative symptom, corresponding to paralysis is to be observed, namely allopsychical disorientation, and we may assume that those complex arrangements of associated memory pictures, which render possible the recognition of the present situation, are here paralyzed or unexcitable. Perhaps it is not mere chance, that the stimulation is so manifested that analogous arrangements of memory pictures, corresponding to entire situations and events, arise spontaneously in pathological distinctness. In this combination of paralysis and stimulation of the allopsychical elements of consciousness, as we may term it, we will have to perceive the specific peculiarity of the existing disease.

It is almost pathognomic of delirium tremens that we find on the contrary well retained autopsychical orientation. An autopsychical defect only exists as to the time of the illness.

The symptoms of delirium tremens are not exhausted by those mentioned. You perhaps have had occasion during my discussion of the case to observe another important cardinal symptom in the patient. Left to himself he is constantly busy, looks for something, unbuttons his clothes, begins to undress, pounds on the wall, pushes against it, rubs and polishes it and is constantly occupied. All these things are accompanied by tremor, but objective, coordinated and evidently suited to certain situations the patient believes he is in. They cease the moment the patient is spoken to and recalled to full consciousness by energetic questioning. As you know, this motor restlessness is generally called occupation delirium, which is fully explained by the changing combination of hallucinations. Motor symptoms are foreign to delirium tremens.

Another cardinal symptom of delirium tremens, the absolute sleeplessness, we will be justified in ascribing to

the exciting effects of the dream-like hallucinations. At least the occurrence of spontaneous sleep accords perfectly with the time the combined hallucinations cease, while the allopsychical disorientation and belief in the reality of the visionary events may continue for days—naturally with the decline of the previous motor restlessness.

We now turn to our patient again to establish a number of other important symptoms. On the first examination of the patient the vibrating, unequally intoned voice must have been noticed, likewise the conspicuous tremor of his movements in his occupation delirium. The same tremor is manifested in the lips and whole face while speaking. The tongue is protruded with marked tremor. But this is not the only speech disorder, for we notice in all hard words a coarser speech disorder, which we find only in two other common diseases, meningitis and progressive paralysis, and term syllable stumbling. For the establishment of this symptom we use certain appropriate test words, like civilization, army organization, exteriorialism, etc. Indications of paraphasia are also found in our patient as soon as we subject him to a reading test, and a test of the writing presents a very similar result as in many paretics, namely paraphraphia. Finally I must state that many patients present an awkwardness and clumsiness in protruding the tongue, which is peculiar only to the grave diseases mentioned above. As you may have seen, the patient has a somewhat distorted face: the right facial is less innervated in repose than the left, and a test of function shows a lagging of the musculature of the right cheek. A deviation of the tongue is quite often observed as a sign of unilateral hypoglossal paresis.

Besides these direct symptoms of paralysis a general weakness is noticeable in the patient. As he has seen service, we have him about face and notice that he then staggers. Likewise his movements in complicated efforts, as e. g. arising from a chair, seem awkward and clumsy. The stamp of a severe type of disease is then confirmed by an accelerated (120), small weak pulse and an appre-

ciable febrile temperature of 38.5°, the heavily coated tongue and slight sensitiveness to pressure over the epigastrium. As all the other organs are found healthy and the excreta present no abnormal constituents, we conclude the existence of a febrile gastric catarrh. Owing to the very marked heart weakness in comparison to the patient's state of nutrition, we are compelled to give a doubtful prognosis; but we will try to tone up the heart's action by the administration of camphor and must meet any threatening collapse by the free use of whiskey.

The clinical picture our patient presents is combined with an inordinately cheerful, jovial frame of mind, inclined to jokes, and that the combined hallucinations are of the same character. "Bismarck on a porcupine" witnesseth. This inordinately cheerful mood seems to occur in the majority of cases, but is wholly unconformable. In a very small number of cases, and as it seems, those especially grave with predominantly anxious ideas and false sensations: devils, the executioner, black men, robbers, wild animals, are hallucinated and correspondingly agitating scenes experienced, or the walls come together or threaten to fall, water rises higher and higher, etc. Combined hallucinations of contact, sight and hearing, as e. g., that of a fire approaching and terrifying persecutors, the rising and roaring water, of snakes, crabs, rats and other disgusting vermin, are quite often the cause of reckless efforts to escape or suicidal attempts. If alcoholic excess is deserving of punishment, it is provided abundantly by the fearful delirium passed through.

The patient's motor restlessness then bears likewise the stamp of these false sensations: rats, snakes and toads are warded off, hurled away, picked off, jumping and swimming movements made, an obstacle obstructing the exit moved away with expenditure of great strength; or the patient wears himself out—while unrestrained in bed—in tearing or removing some fancied fetters he feels. Profuse perspiration generally accompanies this anxious delirium as the readily comprehended consequence of the aimless muscular efforts.



In general vocal expressions are very few in delirious patients. They usually resort to a low muttering or remain perfectly mute and only utter occasional orders or calls for help, which show that they are not mere witnesses, but actual participants in these pseudo-experiences.

The approach of the relieving sleep is generally indicated by the affect of the pseudo-experiences and thus the motor restlessness abating, by moments appearing when the patient becomes actually sleepy, until finally the real profound sleep, often in a very uncomfortable position, overpowers them, a sleep in which a few convulsive movements still occur, but gradually becoming of such a depth that the loudest noises and the greatest shaking cannot awaken, and may even be carried or the position changed without affecting the sleep. The duration of the sleep is often unusual, even to 24 hours and over. Slight ronchi and stertorous sounds in breathing have no momentous significance, if other signs of impending danger do not exist.

The patient presented is a typical example of that acute mental disease which bears the name of delirium tremens or *delirium potatorum*. Although this disease is common it is still greatly in need of an appropriate description setting forth its essential traits.\* Therefore we tarry somewhat with this subject. The principal importance of delirium tremens depends in part on the familiar *etiology* of the disease. Delirium tremens is to be classified etiologically as the most frequent form of the acute intoxication alcoholic psychoses; but still the most acute form of the alcoholic psychoses, the states of pathological intoxication, have to be considered.

The states of pathological intoxication, a special form of the transitory psychoses, are doubtless to be regarded real psychoses, but are differentiated by their duration of only a few hours from delirium tremens, which lasts for several days at least. Later when I speak of similar transitory psychoses I will have occasion to refer to the con-

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\*It has since been given by Bonhoeffer ("Der Geisteszustand des alcohol deliranten" Psychiater. Abhandlungen Heft, 6 Breslau 1898.)

stant symptoms of the state of pathological intoxication. But besides these transitory psychoses and delirium tremens the same poison still produces two entirely different diseases, namely acute hallucinosis\* and the polyneuritic psychosis so-called, whose etiological connection with chronic alcoholic poisoning is just as unquestionable as the other fact, that the same diseases are also observed on entirely different etiological basis. We will see later in speaking of the polyneuritic psychosis that this disease accords with delirium tremens with respect to the allopsychical disorientation. It might seem to follow that allopsychical disorientation and the toxic effect of alcohol stand in an unconditional relation of cause and effect. Still this conclusion is not justified, for on one hand in acute hallucinosis, when it is alcoholic etiology, this symptom is wanting, and on the other, it is marked by presbyophrenia, a mental disease of specific senile etiology. These remarks will show how perverse the tendency is to try to classify mental diseases exclusively on an etiological basis†. The correctness of our standpoint is most evidently shown by the fact, that even delirium tremens is not exclusively of alcoholic origin. Facts would at least be violated if the occurrence of the same form of psychical disease under the following wholly anomalous condition should be denied:

1. In meningitis located preferably on the convexity. It is here usually a matter, similar as in febrile delirium of severe infectious diseases, of the form of psychoses above outlined, combined with an excess of somatic symptoms, which renders the diagnosis of meningitis just as possible as that of the acute infectious diseases. But cases are exceptionally met with where other symptoms are present and for weeks the clinical picture of delirium tremens alone exists, while the autopsy conclusively proves a meningitis of the convexity. In a case of the kind the diagnosis was rendered possible shortly before death by a blood red color of the papilla.

2. The picture of delirium tremens may be further

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\*See previous lecture.

†See Allenist and Neurologist. Vol. XXI, p. 308.

produced by other intoxications, like chloroform, ether, belladonna, etc.

3. In any stage of progressive paralysis the picture of delirium tremens may be simulated.

4. Acute presbyophrenia\* is sometimes not to be differentiated from delirium tremens.

5. In very rare cases delirium tremens forms the first acute manifestation of a later chronic progressive psychosis of the character of grandiose and consecutive persecutory delusions with well retained logic.

If we now return to the specific etiology of alcoholic delirium tremens, it is well known that the existing disease always occurs only as a sequence of long continued alcoholic excess, hence may be considered as a sign of alcoholic degeneration. In this respect delirium tremens seems to claim the value of a symptom of degeneration still more than states of pathological intoxication, which may occasionally occur in nervously constituted individuals after a single ingestion of an unusual amount of alcohol. As second factor, to which ordinarily slight importance is to be ascribed, is very generally true of abstinence from alcohol caused by some external conditions, usually by illness or surgical injuries. This factor forms, according to general acceptation, the common exciting cause for the outbreak of the disease, hence it must generally be kept in mind that in all injuries or intercurrent diseases of chronic alcoholics, a moderate amount of whiskey is continued. But according to my experience such an exciting cause is often wanting, and we meet with numerous cases where the delirium tremens has no complications, not even that of a gastric catarrh. On the other hand the somewhat demonstrable complication does not always cause the habitual drunkard to discontinue the customary use of whiskey. The perniciousness of enforced abstinence is constantly met with in the majority of cases. That it is entirely different with acute hallucinosis has been shown above.

Of the *complications* that with epilepsy needs to be especially mentioned. The epileptic seizures of the ineb-

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\*See following lecture.

riate are a sign of alcoholic degeneration of the brain, like delirium tremens. According to the experiences in our clinic, they present a certain uniformity in point of time, for they generally occur 36 to 48 hours before the outbreak of the delirium following an excess and, in case complete abstinence is affected, to be entirely wanting subsequently. At the clinic alcoholic epileptic seizures almost always occur only on the first days following admission. If we have therefore, as it frequently happens, to constate the consequence of the epileptic seizure, bitten tongue, etc., on admission, we have the task, if possible, to effect total abstinence. Bonhoffer has referred to this almost uniform relation.

It remains to refer to the multitude of other more striking complications or exciting causes which arise in the treatment of delirium tremens. Pneumonia occupies one of the first places and proves particularly dangerous at the time of the critical decline. It is of decided importance for the favorable or unfavorable termination of such cases how the heart muscle behaves. If, as frequently, it is essentially affected by the alcoholic degeneration, a fatal pulmonary œdema is often not to be prevented in spite of all stimulation. But irrespective of this the state of the heart must be regarded a cardinal factor, also in otherwise uncomplicated delirium, for not a small portion of these cases terminate in sudden collapse, not to be foreseen, in an apparently good general condition. Then when the autopsy fails to disclose a pronounced cardiac degeneration, as sometimes occurs, the assumption of an effectual toxic effect on the heart alone remains.

The *diagnosis* is easy if the whole picture, as has been described, is kept before the eye. This picture is so characteristic that experienced clinicians scarcely fail, but will always make the correct diagnosis from the general impression of the patient. But still only the exhaustive analysis offers a certainty, and here it is especially the contrast between the well retained autopsychical orientation and the high degree of allopsychical disorientation, which will afford the decisive criterion. This marked con-



trast is met with in no other disease I know of. Consequently the alternation in the states of consciousness, accordingly as the patients are left to themselves or their attention fixed by conversation, questions or the act of examination, is decisive. The ability to talk and reply promptly and attentively could be peculiar to no other state of like profound, visionary clouding of the consciousness. This peculiarity is wholly wanting in the post-epileptic dazed conditions. Finally the tremor and admixture of the signs of complication of the projection system above mentioned, especially the speech disorder, are of diagnostic value.

But the conditions above mentioned are to be considered in the differential diagnosis of the rare cases of meningitis of the convexity and the common ones of progressive paralysis.

The *treatment* of delirium tremens will offer the most diverse problems to the physician according to the sort of complications or exciting causes. I must refrain from going into them here and confine myself to answering the following principal questions: when and by reason of what indications is it necessary, (1) to give hypnotics, (2) to isolate? That other restraint must not be employed with these delirious patients any more than with other insane needs no discussion: surgical complications alone not only justify, but under certain conditions necessitate an exception to this proposition.

The administration of hypnotics at our clinic happens only exceptionally as I have already intimated, because we have learned that prematurely induced sleep has in no way of course the critical significance of that occurring naturally and does not prevent the delirium from taking its usual course. We have seen repeated interruptions by sleep ineffectual in this respect. If all take the usual course, we wait until the spontaneous sleep occurs. But if it is the matter of a patient who comes under treatment with strength and nutrition reduced, we often induce sleep, as seems necessary according to the state of strength and for this purpose use paraldehyde preferably in doses of 3 to 6 grams, under certain circumstances chloral hydrate (1.5

to 3 grams), or injections of opium or morphine (on an average 0.1 of the first, 0.01 of morphine). If the delirium is prolonged without the normal fatigue occurring, or the pulse begins to become soft and thready, or other signs of exhaustion appear, we perceive an indication for the administration of paraldehyde and have seen no bad effect from even larger doses of this remedy, to 10 grams. Accordingly morphine or opium may be indicated, while chloral owing to its tendency to lower the blood pressure will naturally be avoided. In especially grave conditions the inhalation of pure ether may be proper to attain quiet and sleep.

If we now turn to the second question, that of isolation, its answer may depend under certain conditions, whether a room suitable for isolation is to be had. It cannot be sufficiently emphasized that the danger of suicide or self-mutilation must be excluded during the occupation of the isolation room, that then not any room, but only one provided with all the safe-guards against this danger must be selected, such as exists in every insane hospital. In general isolation is only to be considered in delirium of an agitated nature, and is then required when the anxiety is maintained or intensified by the misinterpreted events on the ward, or when the patient—in presumed defense—suddenly attacks those about. But in the latter instance an experienced attendant stationed constantly by the bed is often to be preferred to isolation. For the great majority of patients bed treatment on the observation ward is the only correct method and is to be abandoned and isolation substituted when one is convinced that quiet will occur, but is retarded or prevented by the effect of surroundings. Most patients go to sleep on the observation ward as above indicated, and continue their sleep in spite of all disturbances\*.

The *pathological condition* of delirium tremens corresponding to the clinical symptoms, shows this disease has a certain relationship to progressive paralysis. This relationship is clinically manifested by the projection

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\*An example of delirium is Case 4 of the "Krankenvorstellungen," Heft 1.

system being affected in delirium tremens as in progressive paralysis. The tremor of the voice and muscles of speech, the syllable stumbling, the indication of paraphasia, the awkwardness of the movements of the tongue and mouth, the frequent facial paresis and deviation of the tongue, the awkwardness of complicated movements are such symptoms.

If you will recall our first clinical gathering, when I tried to give you an idea of the possible localization of mental diseases\*, you know that this combination of symptoms which indicates the implication of the projection system, was for us the characteristic of progressive paralysis. In delirium tremens we become acquainted with a disease, which in this respect is to be placed by the side of progressive paralysis. Consequently it is possible at the autopsy to demonstrate the disease of the projection system. This is possible at least in the severe cases terminating fatally without other complications. In the cortex of Broca's and the central convolutions numerous signs of incipient medullary degeneration are found, which are confined to the radiating fibres of the cortex, after the conus medullaris becomes too large and the tangential fibres of the cortex are left intact. A similar medullary degeneration has been demonstrated in the worm of the cerebellum and here exclusively in the medullary layer. Few, but still unquestionable, signs of the medullary destruction are then found in the pyramidal tracts and in the posterior column of the spinal cord. It is to Bonhoffer's credit\* to have found this important condition and shown its significance.

Bonhoffer's conditions have been based on a few especially severe cases, which were characterized clinically by the fact that patients seem to have lost the orientation of their body in space. Read the original description—Bonhoffer presumes that this symptom is connected with the change in the cerebellum. But in any case it is ex-

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\*See *Alienist and Neurologist*, Vol. XX, p. 145.

\*From the Psychiatric Clinic at Breslau "Klinische und anatomische Beiträge zur Kenntniss der Alcohodelirien," *Monatsschrift für Psychiatrie und Neurologie*, I, p. 229.

tremely instructive that the sensorial projection fields present none of these changes, a condition which, according to the sort of cases coming to the autopsy table, can unhesitatingly be generalized. But it is comprehensible in so far as we very generally have to expect tangible pathological conditions with permanent symptoms of defect, but not with those of irritation. But the combined false sensations are evidently to be referred to irritative processes in the sense projection fields. Broca's and the central convolutions as the known origin of the motor projection system presented the changes to be expected after the symptoms of paralysis observed.

*(To be continued.)*

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EDITORIAL.

*[All Unsigned Editorials are written by the Editor.]*

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THE MENACE OF THE PRESENT FOREIGN IMMIGRATION.—We take pains to guard against the pestilence that “Walketh in Darkness” and the physical “destruction that wasteth at noonday” among our people. We are alive to physical sanitation, but how blind are we in regard to political and psychical sanitation. We see with indifference our present prosperity disturbed and our future menaced by this dirty stream of undesirable immigration pouring like a filthy deluge from the slums of Europe and take no pains to turn back the befouling tide. How long can the fair-play Anglo-Saxon and higher Celtic and Teuton liberty of this goodly land stand this pollution with people who know not the essence of true freedom; in whose vice-stained and vicious hearts the name of Liberty is License? Whose sense of the rights of others and observance of the law has been

kept active only by handy gendarmes and the close by bayonet to prod them into daily observance of the personal, moral and political proprieties.

There was a time when these United States had a better sort of immigration in the aggregate, than now. The steamer *Princez Irene*, on which I returned from Spain, brought over, mostly from Sardinia and Sicily, two thousand immigrants in the steerage and they brought their European discontent and unbridled passion with them. Greedy and grasping when oranges and lemons were distributed by the purser, many of them came up again and again for more, and when driven away, went with pockets and aprons full.

After the ship was a few days out, owing to the greedy ones getting more than their share of bread in one morning, the immigrants were given the ordinary ship's biscuit for luncheon, with meat and beans and macaroni soup. This caused a mutinous rebellion and certain of the men threw bread and soup on the deck, also inducing, almost coercing, others to do the same thing until the deck was a mess of soup and sea biscuit for the sailors to clean off, resulting in one man being put in confinement and many going to bed hungry. The spirit of lawless discontent is among this lot, to be heightened and intensified by the discovery, soon to be made by many of them that America is not the land of license they dreamed, unless they get into some of our large cities and join the gangs of partisan leaders who buy and fraudulently register votes, as has been so shamefully done in this city. The evil spirit of the Mafia seemed to be in some of the gangs on the deck.

What are we going to do about this vicious importation of foreign labor to take the place of our own? Are the people and American labor asleep that they do not look into this violation of our immigrant laws? Like ship loads have preceded and similar ones are following and will follow till the land shall have become flooded with this cheap foreign labor. We shut out the Chinese, who go back after awhile to stay, but let these vicious Sicilians in, many

of whom only go back as quiet agents of capital to induce others to come and take the place of our working-men and reduce their daily wage.

The republics and democracies that endure, must in the main be made of

“Men! High minded men,  
Strong, true hearted men;  
Men who know and do the right,  
These are the Republic’s life and might.”

A writer in the *Cincinnati Enquirer* not long ago concluded with a reference to the yellow peril which we have beaten back from our shores and asks that we “deal promptly and no less thoroughly and effectually with the composite one, which is already upon us from over seas. Beat the long roll and man the works against the invaders—it is none too soon.” And so say we all of us, who know something of the degradation and undesirability of degenerate humanity in a republic builded on numbers of men only, and not on the qualities of manhood and womanhood that made this nation.

THE INJUSTICE OF NON-EXPERT GUARDIANSHIP OF THE INSANE is made apparent almost daily in some misfortune or tragedy happening to insane persons themselves or to others, and very often to both, by too long delayed commitment or the premature discharge from insane hospitals, misdirected treatment or management of these or their misdirected custody in places neither designed for an insane person’s comfort, just treatment nor safety.

Parsimonious or ignorant inhumanity, “for evil is wrought by want of thought as well as want of heart,” sometimes induces county authorities and private families to try to care for chronic harmless insane, so called, but who often appear safe only because they are silent and undemonstrative, at home or in county poor houses, without the skilled surveillance and medical supervision the insane would have a right to claim, if they were in mental condition to secure their rights. The unhinged mind should

be ministered to by skilled psychiatric head and hands, whether in or out of an asylum, but mostly in the latter place.

An insane religious paranoiac endeavoring to transcend the Divine Master he acknowledges, but does not faithfully follow, fasts himself to death on a county farm after fifty-seven days of starvation, when he should have been forcibly fed with a stomach tube and by enema and inunction, as they know how to do in any well officered, non-political, office-rotated asylum for the insane.

I know of a man who was fed for fifty days, who insanely declared he had no stomach. He recovered, but relapsed years after and died from lack of the same treatment.

In regularly built and managed hospitals for the insane, these people are properly cared for and restored. The man in the poor house who talks of murder, suicide or starvation or pyromania, etc., is not heeded, not guarded as he would be in an asylum for the insane, and sooner or later the unguarded tragedy occurs. Many asylums for the insane, with all their safeguards, have been burned to the ground and many lives destroyed through the oversight of an inattentive attendant or the inexperience of a politically appointed medical superintendent, but the greater number of insane casualties have occurred in almshouses where the so-called harmless insane are domiciled, or in private life, where such persons go at liberty among the unguarded, save of communities or life in their homes.

WHEN DR. BRIGHAM DIAGNOSTICATED INSANITY AT SIGHT.—Dr. Steven Smith of New York read at the meeting of the American Medico-Psychological Society recently held in Washington a paper on the subject of "How Dr. Brigham Met the Challenge to Diagnose Insanity at sight." The paper appears in the August *Outlook*.

A Boston negro was on trial for murder. William H. Seward thought the negro was insane, and standing between him and the popular clamor for his death by mob



violence, undertook his defence. The climax of the trial was reached when Dr. Amariah Brigham, then superintendent for the insane at Utica, was called as an expert for the defence. "He believed in the man's insanity, and, after undergoing with much composure a cross examination of great severity at the hands of the prosecuting attorney, he was finally asked whether he could diagnosticate insanity at sight. Dr. Brigham replied that he could. He then was asked by the attorney-general to point out to the court and jury an insane person in the audience. Rising with keen scrutiny and scanning those who were witnessing the trial, he finally fixed his attention on a certain person and pointed to him on one of the rear seats; said he, "There is an insane man." The event justified his diagnosis, and the lunatic was removed from the court room."

The prisoner, in accordance with popular clamor, was convicted of murder but died in prison, completely demented.

This was a hazardous diagnosis, but then Dr. Brigham was the most expert alienist of the day; without a peer in reading the facial expression of mental derangement when insanity in chronic form shows such features.

**RAPID RISE OF A MEDICAL MAN TO FAME.**—Dr. Leonard Wood joined the army as contract surgeon June 9, 1885, and as acting captain in command of detachment of scouts, participated in Indian campaigns in the southwest in 1886-7-8-9, for which he was commended by General Lawton, Miles, Young, Graham and Forsyth for distinguished conduct, and awarded a Congressional Medal of Honor; on May 8th, 1898, he was appointed colonel First United States Volunteer Cavalry, participating in a three month's campaign, being twice in action at Guimaras and once at San Juan Hill, acting gallantly in both engagements. He had previously assisted in recruiting and was lieutenant-colonel of the regiment Colonel Roosevelt commanded at San Juan.

July 8th, 1898, he was promoted to brigadier-general U. S. volunteers. October 7th, 1898, he was made military governor of Santiago, December 7, 1898, major-general U.

S. volunteers, December 20th, military governor of Cuba and February 4, 1901, brigadier-general U. S. A. All of these appointments and promotions were by President McKinley.

Later, Mr. Roosevelt became president of the United States, and with true soldierly instincts and comradeship of a gallant army officer himself, and recognizing the soldierly qualities of his old companion in arms and official subordinate, President Roosevelt, on July 10, 1903, appointed him to the command of the department of Mendanao, Philippine Islands, and promoted him to be major-general U. S. A. last August, 1903.

This is a most rapid promotion, made as a just reward and recognition of distinguished service of one who displayed exceptional administrative skill, as well as military management in a plague infected district. General Wood's department was rendered innocuous to soldiers and citizens of Cuba because of the possession of exceptional sanitary knowledge, such as no officer but such as possessed previous thorough medical training could have brought into so prompt and practical use.

Promotions like these reflect credit on the president's executive sagacity and place him in line with Grant and Napoleon for prompt and just recognition of military merit, regardless of previous rank or condition of the one promoted.

The advice of Polonius is a virtue in the great, though great men sometimes forget it.

"If thou hast a friend and by adoption tried, grapple him to thy soul with hooks of steel," especially if that friend have that all essential training of the good physician which fits for almost any field of human endeavor save that of sordid commercialism.

If General Wood had remained a surgeon, how different, though, and how insignificant, comparatively, would have been his reward, though his merit had been no less. He might have risen to the rank of colonel of cavalry on the regular staff and become a medical director of a brigade in a life time of service, but only one of all medical men in

the army colonels might hope to reach the rank of brigadier and medical director, a rank which ought now to be raised to major-general.

**MULLANPHY MONUMENT.**—It is now tardily proposed by the Mullanphy Fund Association to erect a monument, so-called, which is to be a tombstone in Calvary cemetery.

The proper thing and the proper place would be a fitting memorial structure in one of the public parks, to this philanthropic benefactor of St. Louis. For more than a third of a century the poor have been the recipients of his silent but sure benefactions in hospital and home. Let the monument be such and the place such as this good man, long gone to his eternal reward, deserves of earth.

**THE SLAUGHTER GOES ON.** This is the caption of a statistical editorial in the August eighth number of the *Scientific American*, in which the following statements and conclusions appear: "The rate at which our railroads are killing and maiming people continues steadily to increase. According to the report of the Interstate Commerce Commission on Railroad Accidents in the United States, within the three months ending March 31 last, 300 people were killed and 2,834 injured in train accidents. Other kinds of accidents, including those sustained by employes while at work, run up the total casualties to 827 killed and 11,481 injured. That these accidents cannot be put down entirely to the fault of the passengers and employes themselves is shown by the fact that during the quarter under consideration, 1,650 trains were in collision and 1,181 trains were derailed." The story of the cause of a recent wreck is told in this terse sentence: "The men had been on duty more than 24 hours," and in this "the worn-out local crew, on their fast moving train, were caught in the wreck."

One grave indictment of the steam and electric railway management of the United States is the over-tax of their men to the point of extreme brain fatigue and mental instability—railroading, in nearly all of its departments, the telegraph adjuncts as well as the administration and direct operating service.

A twelve-hour unremitting vigilance, with the alertness and calm-headedness required of engineers, train dispatchers and telegraph operators, is too much for the continuous sustaining of the average brain's capacity, especially after long, sustained stress of such prolonged functioning. An eight hour continuous strain of mental action would secure the most efficient and reliable mental stability, and diminish the number of accidents resulting from wrong reading or sending of telegraphic or telephonic orders and all forms of failure from brain-wearied inattention and brain-fag failure of function. A more psychologically and physiologically enlightened adjustment of the railway employee's time table hours of duty might prove economical in salvage against wrecks and damage suits and life destruction, as well as make better showing on the dividend side of the railway ledger, which latter seems to be the *raison d'être* of railway existence.

Railway employees forced to too long continuous daily service break down and die prematurely, but before they finally break down and give up service, many of the most ambitious, faithful and competent stick to their posts too long or till after cerebraesthesia unfits them for the best and most vigilant and continuous service of their better days, and in an hour of nervous and mental instability, fatal and expensive mistakes are made for their companies.

The wrecks of railways are not only along its tracks, but among their once best and most faithful servitors, strained and broken in their psychic neurone centers by an unremitting and too prolonged daily service. The machinery of the mind needs regular and timely repair, like the machinery of the railway rolling stock, and should be kept in good order as well as the rails and wheels. Wise and prudent railway officials should consider the strain put on railway employees even as "a good man considereth his beast."

THEATRICAL PANDERING TO THE GENESIC SENSE.—  
If this new world is not some day to go the way of its old predecessors of antiquity and the antiquarian of the fu-



ture is not to find on our walls the libidinous portraiture of Pompeii and other exhumed and perished cities of the past, it might be wise to endeavor now to suppress the vice of theatrical pandering to the genescic sense. To keep the pudic nerve area and its brain relations in constant activity with nude shows and lascivious portraitures is deterrant and detrimental of and to the proper growth and development of the higher psychic neurones, in whose center groupings the nobler sentiments and higher emotions reside.

Too many of our young are living psychically below the umbilicus and degenerating above the cervical plexus, for the future welfare of the race. Better the racial suicide, of which President Roosevelt complains, than excessive fecundity of lascivious libidinous erotopaths, nymphomaniacs and satyriacs. There is a higher psychic destiny possible to men and women, as the examples of as many of the neurotically well-endowed illustrate in their lives, some of them being celibates, than to lasciviously procreate legions of licentious lives.

Too many of our vaudeville and other theatrical exhibitions are not regarded as complete without something suggestive to the sexual feelings. And the genescic sense is active enough—too morbidly active—in the present state of the race, without theatrical or vaudeville over-stimulation.

**SUPERINTENDENT FOR PSYCHIATRIC HOSPITALS** should be selected, all other considerations being equal, from the already resident medical staff, because of the personal familiarity already established between physician and patient, which counts for much in the line of the welfare of the insane patient. And the appointment of an entire new staff of medical men who are non-expert alienists from the outside, to come for the first time in their lives into professional relations with these unfortunates is positively vicious. Any political party that does it should be discounted.

**YOUNG OLD MEN AGAIN.**—The last number of the *Alienist and Neurologist* referred cursorily to this subject with reference to our day. Our ably and scholarly con-

ducted contemporary, *The St. Louis Republic*, (Sunday) gleaned for the edification of its many readers in its August thirtieth edition, the following from ancient records made at the time of a census in the reign of Vespasian:

When this census was taken several persons were living who were more than 100 years old, among them being two in Parma, each 125 years; one in Brixellum, 125; one in Placentia, 130; a woman in Faventia, 135; L. Terentius in Bologna, 140; M. Apponius and Tertulla, the former being 140 and the latter 137, and at Velejacium, near Placentia, six persons who were 110, four 120 and one who was 140.

Moreover, several historical personages lived to a great age.

Cato Censorius transacted business until he was nearly ninety and retained to the end all his old-time vigor.

Terentius Varro lived to be nearly 100, and he continued to write up to the day of his death.

Plato died in his eighty-third year, and his last hour was devoted to intellectual work.

Isocrates was 94 years old when he wrote his famous work, "Panathenaikus."

Chrysippus began to write his work on logic in his eightieth year. Cleanthes taught his pupils up to his ninety-ninth year.

Sophocles lived to be nearly 100, and during his last days he wrote the "Oedipus Coloneus," one of the greatest tragedies ever written.

Quintus Fabius was appointed augur when he was past middle age, and he held the office for sixty-two years.

Livia, the wife of Rutilius, lived to be 97; Terentia, Cicero's wife, 103, and Clodia, the wife of Aufidius, 115.

Hiero, King of Sicily, lived to be 90, and Masinissa lived to be still older and ruled for sixty years.

Cicero, in his work on old age, says of the latter that nothing could induce him to cover his head, no matter how inclement the weather was.

Gorgias of Leontinum, the teacher of Isocrates and other distinguished men, was in excellent health at the age of 107 years.

Xenophilus of Chalcis, the Pythagorean, lived to be almost as old as Gorgias, and his latter years are described as being most happy.

Finally, ancient records show that Arganthonius began to rule when he was 40 years old and held power for eighty years, and in the third book of the "History" Asinius Pollio tells us that he did not die until he was past his one hundred and thirtieth year.

LITTLEFIELD'S SPONTANEOUS (CHEMICAL) GENERATION.—This same edition contains a full page account with illustrations of Dr. C. W. Littlefield's account of his own apparently successful researches in quest of spontaneous generations which would interest Spencer, Huxley, Darwin, Tyndall, Haeckel, Wallace and especially Carlton Bastian, as well as all the readers of the *Alienist and Neurologist*. Littlefield claims to have developed a live, prehistoric trilobite of the mollusc age from a sterilized solution of chloride of sodium (one ounce of the latter to six of water) with six ounces of C. P. alcohol and two ounces of officinal aquæ ammoniæ added.

Littlefield maintains that this evolution of life without a germ *ab initio* may be witnessed by anyone, and claims that he has escaped the error which Tyndall attributed to Bastian.

This interview and illustrations are well worth consulting by those who, notwithstanding these recent experiments of Loeb, still believe the old biologic maxim, "*omne vivum ex ovo*" to be true.

In this connection, too, Dr. Littlefield's explanations of the evolution of life, as portrayed in the mosaic account of Creation, are interesting.

HOW LONG! O LORD HOW LONG! shall this rapid transit slaughter go on? Each day chronicles more deaths under the wheels of this commercial juggernaut, going at murderous, unlawful speed through the streets that once were the people's. Every night and morning, hearts are bleeding for loved ones that are not, because of the merci-

less speed and life reckless management of our street cars.

Now, the mourners go about the streets or weep in silent chambers of sorrow, in innumerable households, as if some plague had bereft them of their loved one—mourning because they are not. Yet no pestilence has come amongst us. It is only the street car evil. The crime of the iron rail and wheel; the rapacious, soulless rapid transit, sending the people to eternity ahead of their time for dividend purposes. Dividends must be made, though the people perish and the laws are violated.

Where are the police that this unlawful running down and over the people is not stopped? Why are these rattling cars allowed to make such murderous rushes through our thoroughfares? These and those other terrors of our residence streets, the automobiles rushing like bolts of lightning hurled by inhuman fiends. But the crime of the time-table is most of all.

If a cabby or a coachman went thus through the streets, arrest and fine for rapid driving would be the remedy for his reckless disregard of human life and other's rights to the streets; whence the present official apathy and indifference to the daily, deadly rapid transit?

But the direct maiming and murder of the people by these rapid transit servitors of the public, transformed into tyrants, is not all. A street car terror of the timid and even of the once strong and steady nerved, is developing among the people who must use the streets. "When getting off a street car look out for the car behind" is the official injunction, but the habit of alertly looking out for the coming street car in every direction—behind, before, at your side, everywhere, is developing a degree of mental incessant vigilance, which in the nervous, is becoming a morbid nervous habit among pedestrians; and, as for private vehicles, prudent people no longer venture in them on downtown, rapid transit owned streets. To be in constant dread of sudden injury or destruction is not a feeling promotive of nerve center stability to people who must use public streets, with ten to thirty mile an hour running, immense cars, passing in two directions every few minutes.



A double track franchise for more than six miles an hour rate of travel through crowded streets should never be granted. The modern over-sized, too rapidly running street cars; running on steel wheels and steel rails and on noisy trucks, is an addition to the nerve-shattering devices of city life, which should be regulated within health and life assuring limits as to speed and noise, or put under ground or over head far enough to be out of hearing distance.

HAEMIC TOXICITY IN THE INSANE.—Ceni and Pini (*Revista Sperimentale di Freniatria*) in a study of this subject, find no marked changes in the serum of the insane compared with that of the sane. Some slight toxicity was found in the blood of maniacs and epileptics, but no very notable variations; but none in alcoholics, paranoiacs or general paralytics.

CHARGING FEES TO THE CLERGY.—A custom "more commendable in the breach than in its observance," which has come down to the medical profession from former days, is that of exempting well-salaried clergymen from legitimate fees for medical service. We fee them when they marry us, christen or bury us or ours, why should they not pay us? The Papal Court has just set a good example in the payment of the attending physicians of the late Pope Leo XIII. The fees paid were, to Dr. Laponi, \$4,000; Mazzoni, \$3,000 and Professor Rossoni, \$2,000. Laponi is the new Pope's physician.

AS A SEQUEL TO THE CYCLONE NEUROSES, a woman of East St. Louis, who had been in the cyclone of 1896 and since then suffering from nervous trepidation and that peculiar fear of storms which characterizes so many cyclone nervous sufferers, was frightened into a swoon of heart failure from which she never recovered, by the heavy rain and wind and thunder storm of August fifth. Medical aid, promptly summoned, was ineffectual to restore her.

THE NORTH GERMAN SEA COAST FOR THE NERVOUS is the subject of an interesting article by Dr.

Weber, of Norderney, in the *Deutsche Medizinical Zeitung* of Berlin, for August 27th, commendatory of this coast *Fuer Die Nervenkrankheiten*.

Similar observations might be made concerning the value of our North Atlantic and Pacific coasts in the summer seasons for the neurasthenic and other neuropaths.

A DOCTOR'S GRANDSON FOR MAYOR OF NEW YORK.—George B. McClelland, grandson of Dr. McClelland and son of the distinguished general of that name, is Tammany's Polyglot candidate. He spoke during the canvass in four languages and was elected in all of them.

If the character and ability of the grandfather reappear in the grandson, New York has secured a good chief executive.

THE NEW SUPERINTENDENT OF THE GOVERNMENT HOSPITAL FOR THE INSANE is Dr. William A. White, lately superintendent of the Binghampton State Hospital, New York. He fills the vacancy made by the decease of Dr. A. B. Richardson. He will fill it well.

DR. PUNTON'S SANITARIUM, AT KANSAS CITY, faces Troost park and is delightfully located. We made the doctor a hurried surprise visit and found his institution in excellent condition, full of patients to its normal capacity and well arranged and well ordered in all the essentials for such an establishment, including the accomplished superintendent and his charming wife. The personnel of the head management of such an establishment is an important consideration, therapeutically considered.

It is our purpose to acquaint ourselves personally with other of the several institutions advertised in our pages, as opportunity offers.

AMERICAN CONGRESS ON TUBERCULOSIS.—The annual session of the American Congress on Tuberculosis was held June 10, 1903, at the New York Press Club. The

new Council, provided by the revised constitution of last year, was formerly elected, and was instructed to arrange for a Congress of Tuberculosis at St. Louis in 1904. The following honorary presidents were elected: Laymen—John Hay, Secretary of State; Justice Charles G. Garrison, Supreme Court, New Jersey; Abram H. Dailey, Brooklyn; General Russel M. Alger; the Earl of Minto, Governor-General of Canada. Medical—Dr. A. N. Bell, editor of *The Sanitarium*; Dr. J. G. Adami, professor McGill University, of Montreal; Prof. Charles H. Hughes, St. Louis; Dr. N. Senn, Surgeon-General, State of Illinois, Chicago; Dr. Presley M. Rixey, Surgeon-General, U. S. N.

The following officers were elected: President, Dr. E. Barrick, Toronto; First Vice-President, ( ——— ); Second Vice-President, ex-Chief Justice L. Braiford Prince, Santa Fe, New Mexico; Third Vice-President, Dr. Charles K. Cole, Helena, Mont.; Fourth Vice-President, Dr. Sofus B. Nelson, State Board of Health, Pullman, Wash.; Fifth Vice-President, Dr. A. M. Linn, State Board of Health, Des Moines, Iowa. Samuel Bell Thomas, Esq., of New York, was elected Secretary, and Clark Bell, Esq., who resigned as Fifth Vice-President, was elected Treasurer. The Council elected were as follows: Moritz Ellinger, Esq., of New York, chairman; Dr. J. Mount Bleyer, of New York; Dr. W. F. Drewry, of Petersburg, Va.; Dr. A. P. Grinnell, of Burlington, Vt., Dr. Mihran K. Kassabian, of Philadelphia, Pa.; Dr. H. Edwin Lewis, of Burlington, Vt.; Dr. M. Markiewicz, of New York; Dr. Richard J. Nunn, of Savannah, Ga., and Dr. J. W. P. Smithwick, of La Grange, N. G. The entire list of honorary vice-presidents, consisting of Governors of States and Provinces, and prominent public men of foreign countries, and States, was re-elected, as was the lists of vice-presidents at large, and the vice-presidents from the States, consisting of three physicians and two lawyers of the States of the Union and Provinces, with a very few exceptions.

The medical profession is invited, as well as the legal, and the laity who take an interest in the subject, to co-operate.

Those wishing to contribute papers can send their names and the titles of their papers to the president, Dr. E. J. Barrick, of Toronto; the Secretary, Samuel Bell Thomas, 290 Broadway, New York, or to Clark Bell, Esq., 39 Broadway, New York, chairman of the executive committee.

This Congress will be one of the most important of the year 1904, because it is an extension of the work of the medical profession among lawyers and the laity, showing interest in this important subject.

THE PARIS CONGRESS of Tuberculosis to be held in that city next year ought to have been secured for St. Louis.

The Washington Congress on the same subject for 1905 will keep alive active interest in one of the most important themes of the century for the welfare of the world.

THE FRISCO HOSPITAL AT SPRINGFIELD we found, on recent inspection, through the courtesies of Dr. Cale, the surgeon-in-chief, and Dr. Teft, to be in excellent condition and every way creditable to the management thereof. 16423 cases were treated last year in this hospital and the associated dispensaries of this admirable system, modelled after that of Surgeon Outten, the efficient Chief Medical Officer of the Missouri Pacific Hospital Department.

The Frisco system has also 37 dispensaries extending over 5000 miles of road. Last year 36036 prescriptions were dispensed and 9664 surgical dressings were applied. The hospital is financially prosperous on a fifty and seventy-five cent per month assessment per capita of officers and employees.

THE LYING DISEASE, which Dr. Benjamin Rush described in the early part of the nineteenth century, has not yet been conquered by the sanitarians. A condition much like it still persists among some of the daily press reports, as displayed in their accounts of poor James L. Blair's



insurance. One million dollar lie minus five hundred thousand dollars of truth is told by somebody in regard to his life insurance, and the truth appears to have been overshoot a good many hundred per cent in regard to his accident insurance. Of course only false information or disease could make newspaper reporters lie like that. It is not considered good business policy in newspaper offices to lie, and somebody must have mislead the reporters.

If the story of Mr. Blair's defaults and forgeries are to be measured by these exaggerations, there ought finally to be little in them. If a man's faults of years ago are to be brought before the grand jury to satisfy a grudge after they have been settled with all the parties concerned, paid up in full, repented of, atoned for and outlawed by the statutes of limitations, what are we coming to? This is like trying Eve for the sin in the garden and Adam for indecent exposure, after he had put on the best clothes he and Eve could get; and Eve's daughters certainly wear clothes enough now for a full atonement. They both did the best they could under the circumstances, and so did Mr. Blair. Why not let him alone?

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY for 1903 has been found to be a very satisfactory book of reference. It will prove likewise useful to our many readers. This series of year-books saves the practitioner time in reference and will post him with comparatively little effort.

W. B. Saunders & Co., Philadelphia, are the well-known publishers.

THE VACUUM CAP is likely to come into use for more therapeutic purposes than baldness or gray hairs. It seems to have proven of service in cerebral hyperemia in our own experience. We may report more definitely on its value later.

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## SELECTIONS.

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### CLINICAL NEUROLOGY.

**TELEGONY.**—Telegony or Vicarious Heredity is the effect on the progeny, of the previous crossing of the female parent with another male, shown by the transmission of the characteristics of the first male, to the offspring of the second male. It is sometimes termed "infection of the germ."

One of the often quoted instances of the influence on subsequent offspring of the first sire is that of Lord Morton's mare. Toward the end of the last century Lord Morton, an Englishman, imported some zebras. One of these was crossed with a pure-blood Arabian mare that breeds very true, and a hybrid foal was obtained. Subsequently the Arabian mare was bred with an Arabian stallion and the foal was marked like the hybrid.

The case of Mr. Giles' sow is quoted in the New International Cyclopaedia. A black and white Essex sow was mated to a wild boar of dark chestnut color, and the pigs produced, partook in appearance of both boar and sow but in some, the chestnut color of the boar strongly prevailed. Later the sow was mated with a boar of her own black and white race, which usually breeds very true, yet the sow produced pigs marked with the same chestnut tint, as the pigs of her first litter. Darwin gives numerous instances, and the dog breeder is a firm believer in telegony.

Should knowledge of vicarious heredity become general we believe it would affect the well known popularity of widows who had born children by their First. The prospective Second would be deeply interested in the char-

acteristics of Number One, in order to make an estimate of the kind of a blend that the new combination might produce. Should he know nothing of Number One, and an almond-eyed or kinky-haired tendency be seen in the offspring of Number Two, telegony would give a ready explanation by which no person would be compromised.

If a man had too much tendency to drink it would be well for him to marry a widow whose first husband was a Maine prohibitionist and thereby secure a blended offspring that would be well balanced. In fact the more we think of this subject, the wider grows the horizon.—*Editorial, Southern California Practitioner.*

ARTERIAL SCLEROSIS AS CAUSE OF ORGANIC NEUROSES—M. A. Starr, New York, (*N. Y. Med. Rec.*, July 4, 1903), states that it is not a matter of general knowledge that a very large number of cases of hemiplegia occurring in childhood and infancy are to be traced to vascular disease. Recent investigations have proven that obliterating endarteritis may be the result of inherited syphilis and hence it becomes evident that disease of the blood vessels is a factor in the causation of infantile cerebral palsies. A careful study of 200 cases of apoplexy has shown that 80 per cent had distinct prodromata, a fact which shows that they cannot be considered as of neurasthenic origin but must be traced to malnutrition of the neurones consequent upon arterial disease. It is also not commonly known that the majority of diseases of the spinal cord are equally traceable to disease of the vessel wall. In anterior poliomyelitis, bulbar paralysis and ophthalmoplegia it enters as an important factor. Myelitis, spastic paralysis, commonly known as Erb's syphilitic paraplegia, numerous cases, hitherto classed together as senile paraplegia, and combined sclerosis are all among the forms of spinal cord disease that can be traced to arterial degeneration. Diseases of the peripheral nerves are also occasionally due to endarteritis in the small vessels which accompany them, while some of the minor nervous symptoms, both of spinal cord and of nerve disease, may also be due to the

same factor. It has been found that the forms of treatment which appear to be of the most benefit both in neurasthenia, in neuralgias, and in hemiplegia include methods which result in the establishment of an equable circulation. It has not seemed to the author that the ordinary treatment of arterial sclerosis by drugs has been very satisfactory. From unknown causes of internal origin, a great variation in the tension of the pulse is commonly observed, and it has appeared to him as probable that in some cases of arterial sclerosis and in many cases of temporary high-tension pulse there may be a temporary or permanent defect or arrest of secretion of the thyroid gland. In such conditions of temporary high-tension pulse he has found the administration of thyroid extract of very great benefit.

EXAGGERATION OF REFLEXES IN CANCER.—Dr. Buck and O. Vander Linden (*Scottish Medical and Surgical Journal*, April, 1903) have examined the condition of the reflexes in cases of cancer, and have found in every case, irrespective of the site of the cancer, exaggeration of the tendon reflexes, amounting in some cases to actual clonus; the state of cutaneous reflexes was more variable, but sometimes they were also exaggerated, especially the abdominal reflexes. Short notes are given of five cases of cancer (pyloris, uterus, rectum, breast,) in all of which the tendon reflexes were markedly increased, and in three clonus was present. In no case was the plantar reflex of the extensor type (Babinski's sign). In cases of sarcoma the same exaggeration of reflexes was found.

Whilst admitting that this condition of the reflexes occurs in other discrasiaë (*e. g.*, syphilis, tubercle, chronic septicemia, pernicious anemia), the authors think that this sign is a valuable one in the diagnosis of malignant disease, especially in doubtful cases affecting a deep viscus, inasmuch as it is found in an earlier stage of the malignant intensity than is the case in the other toxemias.

As regards the cause of the exaggeration of reflexes, they do not think that it is due to reflex irritation from the toxin neoplasm, or to a systematic affection of the



pyramidal tracts; they incline rather to the view that the lesion of the central nervous system is of the nature of a diffuse degeneration, such as occurs in pernicious anemia.

GIANTISM—Henry Meige, (*Archives Generales de Medicine*), states that a comparative study of giantism shows that it is relatively related to acromegaly. There is an abnormal and excessive osteogenetic function which results in giantism so long as the bone is capable of increasing in length, and in acromegaly when ankylosis of the epiphyses interferes with the manifestation of the hypertrophy, except at the extremities of the bones. The cause of this perturbed function cannot as yet be definitely stated. But it is well to bear in mind the affinities existing between the bony development, the genital development and the condition of the vascular glands, the thyroid in particular. Both giantism and acromegaly are frequently accompanied by general phenomena, such as pain, circulatory troubles, urinary and sexual disturbances. Giants belong to two types—the infantile and the acromegalic, with intermediate types. Marriages should be discouraged in individuals of either type.—*Medical Mirror*.

ARTERIES, CALCIFICATION OF MIDDLE COAT OF.—The writer examined 130 subjects to determine the frequency of this alteration of the arteries of the extremities and its relation to arteriosclerosis. Instead of its being a rare occurrence, he found pure media calcification in 55, with or without arteriosclerosis of the deep-seated arteries, and in 18 the sclerosis involved the peripheral arteries also. In 57 there was pure arteriosclerosis alone. Thus, the media calcification occurs more frequently than arteriosclerosis, and is evidently often mistaken for the latter. Its degree and extent are no criteria for or against accompanying arteriosclerosis of the central vessels, as either may occur alone. The femoral artery is one of the most frequently involved and chiefly affected by the calcifying process, and is sometimes the only one. In 12 of his subjects no other vascular affection could be discovered. The ages of his

subjects ranged from 47 to 79 years, and the list included workingmen, clerks, sailors, artisans, etc.—both indoor and outdoor workers. There were no special alcoholic or venereal antecedents except in 2 and no chronic affection in any. Smallpox, cholera, dysentery and malaria were noted in the history of 1 case each, cancer in 4, and tuberculosis in the same number.—*J. G. Monckeberg, (Archiv f. path. Anat., Phys., u. klin. Med. vol. clxxi, No. 1, 1903).*

RADIUM RAYS, THE PHYSIOLOGICO-PATHOLOGICAL IMPORTANCE OF.—Sajou's *Cylopædia* thus abstracts E. S. London's article on this interesting subject in *Berlin Klin. Woch.*—June 3, 1903.

If a piece of sealing wax is actively rubbed with flannel, it will, as is well known, attract to itself from a short distance small pieces of paper. If, now, after the sealing wax has been rubbed with the flannel, it is passed over the box containing the radium, its power to attract pieces of paper is lost. Mammals are killed by exposing them to the radium from a distance. Mice were used, and were placed in glasses which were covered with a gauze sheet of zinc. The radium inclosed in a box made of gutta percha and metal was placed upon the cover. Such animals died within four or five days, under symptoms of paralysis of the nerve centers, while mice similarly confined, but not exposed to the radium, lived and were in healthy condition. Upon the human skin radium thus used exerts an irritating influence and produces a dermatitis. Arterial blood is darkened in color under the influence of radium rays. The blind who are slightly susceptible to light have this susceptibility much increased when radium is brought near to the eyes. The blind who have no susceptibility to light do not react to the action of the radium. The blind who can detect indistinct shadows of objects upon a light background, under the action of the radium are enabled much more sharply to outline the objects. Persons with sound eyes, if the same are closed and tightly bandaged, perceive the light when the radium

is brought within ten or fifteen centimeters of their forehead. Microscopical examinations may be made in a dark room by means of the radium rays.

**CHEMICAL COMPOSITION OF THE BODY.**—A French chemist (according to *The Coca Leaf*) of a particularly inquiring turn, has determined by experiment that the body of an average man, of about eighty kilos, has all the chemical elements represented in the yolk and white of twelve hundred ordinary sized eggs of the common hen. Properly reduced, such a body would furnish 96 cubic meters of gas and sufficient hydrogen to fill a balloon with an essential force of 70 kilos. Normally, the human body contains iron sufficient to make seven large nails, fat for thirteen candles, carbon for 65 gross of pencils, phosphorus to tip 820,000 matches, together with the constituents of twenty teaspoonfuls of salt, fifty-nine lumps of sugar and forty-two litres of water.

**THE CEREBRAL NEURONS IN RELATION TO MEMORY AND ELECTRICITY.**—Si James Grant, Ottawa, Canada, (*Jour. A. M. A., February 2, 1901*) discussed the relation of electrical currents to nerve action, calling attention to the fact that nerve cells are capable of so much ameboid movement as to actually alter their relation to each other, and pointing out that the application of electricity might accelerate or retard these movements and thus be a powerful therapeutic agent in nervous disorders.—*American X-Ray Journal*.

**THE LIP REFLEX OF THE NEWBORN.**—O. N. Thomson (*Rev. of Neurol. and Psychiatry*) notes this reflex in infancy. It is best elicited by gentle taps on the upper lip, a little above the angle of the mouth, or on the lower lip a little below it. The tapping shows a slight momentary jerk. The lips close, purse together, so as to pout a little. As the tapping is repeated, the protrusion of the mouth becomes more and more marked. This reflex can be elicited in all healthy new-born babes, when they are

sound asleep. It is not as a rule present when the baby is awake. After the third or fourth year it is uncommon.

TWO CASES OF ISOLATED COMPLETE PARALYSIS OF THE OCULOMOTOR NERVE, FOLLOWING INJURY OF THE SKULL.—Desgouttes and Muller, Lyons. (*Revue generale d'Ophthalmologie*, 30th April, 1903,) report two cases of trauma to the skull in which, without other motor disturbances or other sign of involvement of the base of the brain, an isolated paralysis of the two oculomotor nerves developed. Each eye recovered in a few weeks' time.

The mechanism of the production of paralysis is presumed by these authors to have been due to a hemorrhage taking place into the sheath of the nerve.—*Annals of Ophthalmology*.

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## NEUROTHERAPY.

A CURE FOR TETANUS.—Experiments at the Maryland Veterinary Hospital prove that tetanus may be cured by formalin.

Dr. Spranklin first injected into the jugular vein of an animal injured in the eye, the formalin compound. Within five hours the animal, which appeared to be dying, revived and improved for three days. It appeared to be dying again. The solution was injected again. In five hours the same improvement resulted. A third injection was employed for the third and final relapse. The horse after that recovered without further treatment.

THE THERAPEUTIC VALUE OF ADRENALIN.—In the *British Medical Journal* of February 21, 1903, Duncanson reports his experience with this new remedy. He says this remedy is claimed to be the active principle of the suprarenal gland, and is conveniently supplied in an aseptic solution as adrenalin chloride solution, 1 in 1000, by Parke, Davis & Co. The author believes from his experience that it is altogether more practicable and efficacious than a solution of crushed suprarenal gland tabloids.



The three cases reported are taken from a large number in which he used this preparation, and in all with marked improvement.

**CALCIUM SALTS IN NERVOUS DISEASES.**—Jacques Loeb claims to have discovered that muscular and nervous diseases, such as St. Vitus' dance, paralysis agitans, locomotor ataxia, and insomnia, can be cured by the administration of calcium salts. His conclusion is that the presence of the calcium salts in the muscles prevents their twitching, and that their absence leads to the various nervous disturbances mentioned; hence the administration of calcium salts as the remedial measure.—*American Medicine*.

**BORIC ACID FOR GOITER.**—Kyle (*American Medicine*) says that he has practically cured eleven cases of enlarged thyroid gland by the prolonged administration of boric acid, 10 to 15 grains in capsules with a full glass of water every three hours.

**EXOPHTHALMIC GOITER, RESECTION OF THE CERVICAL SYMPATHETIC. RAPID DEATH.**—Deshusses, Lille. (*La Clinique Ophthalmologique*, Feb., 1903.) Deshusses reports a case of Graves' disease in a female of 41 years of age. The disease developed ten years previously after an abortion of a seven-months-old fetus. The goiter, the exophthalmia and the tachycardia were marked and there was swelling on the legs. The patient was markedly physically depressed. An unilateral excision of the superior cervical sympathetic ganglion was done. There were not any untoward results for two hours after the operation when the patient became restless, complained of suffocation, and developed a rapid pulse, death following in a few hours' time. The cardiac failure is attributed to the reflex stimulation of the remaining sympathetic of the opposite side.—*Annals of Ophthalmology*.

**CHLORIDE OF SODIUM STARVATION IN EPILEPSY.**—  
"Note on the Salt Starvation Principle in Epilepsy, Treat-

ment by Bromides."—Dr. L. Pierce Clark (*New York Medical Journal*, Feb., 1903), urges the importance of the hypo-chlorization diet treatment in conjunction with the bromides. The writer argues that since most epileptics are very fond of table salt as well as other highly seasoned condiments, their body tissues are highly saturated with the chlorides, and since, by experimenting upon animals and men it has been shown that bromine can replace chlorine in the body tissues, therefore by sodium chloride starvation and the continual administration of the bromides, we get an organic bromide compound acceptably fulfilling the physiological role of chlorine and at the same time acting as a therapeutic agent of sedation in epilepsy.

Under the salt starvation method 20 to 60 grains are as efficacious as 60 to 160 grains where this principal is disregarded. The lowering of the dosage of the bromide has an economic feature in it, as bromine sedation must often be continued for several years. Again, it lessens the liability to toxicity from the drug, with its well-known attendant evils upon mind and body. The writer concludes by asserting that the hypo-chlorization adjuvant principle is the greatest therapeutic advance since the discovery of the bromides.—*W. D. Inglis, A. B., M. D., abstract from Columbus Medical Journal (Periscope of Medical Progress.)*

IN A CASE OF NEURASTHENIA, patient suffering for a number of years without being able to obtain any permanent relief, T. W. Goldthwaite, M. D., reports satisfactory results with Neurilla. It has proven an excellent nerve calmate.

IMPROVEMENTS IN THE THERAPY OF LOCAL ANALGESIA; COMBINED B-EUCAINE AND ADRENALIN.—Several points must be borne in mind, among them the mechanical and physical difficulties in infiltrating all the nerves supplying an extensive field of operation. To inject the whole area so as to reach all its nerves would mean in many cases the use of much more of the toxic drug than

is necessary, and in some cases so much as to be dangerous.

The author refers to certain observations by Braun, of Leipsic, on a method of overcoming the drawbacks incident to the usual mode of producing local anesthesia. This method is based upon the old experience that *anything which retards or diminishes the circulation of the blood in a part enhances the potency of the analgesic agent*. Experiments were made with Adrenalin, a very small quantity of which was injected with B-eucaine (or cocaine) into the author's own arm, and subsequently into the arms of numerous patients. After the lapse of twenty minutes the part was quite blanched and wholly insensitive to pain, remaining so for about two hours. Adrenalin, alone, used in this way had no analgesic effect, while the results of the use of the combined solutions of B-eucaine and Adrenalin were far superior to those produced by B-eucaine alone.

The most convenient way to prepare the solution is as follows: Powders each containing 0.2 gramme (3 grains) of B-eucaine and 0.8 gramme (12 grains) of pure sodium chloride are kept in thick glazed paper, ready for use. When needed one powder is dissolved in 100 Cc. ( $3\frac{1}{2}$  fluid ounces) of boiling distilled water and 1 Cc. of Parke, Davis & Co.'s Solution Adrenalin Chloride is added when the fluid is cool. The solution is left in the Jena glass beaker in which it has been boiled, which is carefully covered and placed in a vessel of warm water to keep it at blood heat.

The injection is made by means of a simple syringe of glass and metal of 10 Cc. capacity, with rubber washers, which can be sterilized by boiling.

To illustrate his method the author describes in detail the performance of an operation for the radical cure of inguinal hernia. The hernia is first reduced and the index finger is thrust into the external ring as far as possible. Along this finger the needle is entered and the inguinal canal is filled with 10 Cc. of the solution. An endeavor is made to inject it all around the neck of the sac so as to reach the genital branch of the genito-crural nerve. The needle is then entered at the external end of the line of in-

cision in the skin, and is made to infiltrate the *superficial* layers of the latter down to the root of the scrotum, making the resulting wheal at least an inch longer at each end than the incision is to be. Injections are then made at a point half an inch to the inner side of the anterior superior spine of the ilium, the needle being thrust toward the ilio-inguinal nerve, and at a point about one inch above the middle of Poupart's ligament where the ilio-hypogastric nerve is most conveniently met. Then the thigh is flexed and another syringe-ful is injected along the ramus of the pubis and the root of the scrotum or labium.

It is necessary to wait twenty minutes after the last injection for the full effect of the Adrenalin to develop. The whole field of operation should be blanched and insensitive to pricks but not to touch—analgesia, not anasthesia. The incision may then be made with confidence that no pain will be felt. The absence of oozing of blood is noticed. Only large vessels bleed at all.

Success depends upon a mastery of the principles, and practice in the details of the method. It is not enough to inject the fluid under the skin generally. Due regard must be had to the position and course of the nerves supplying the structures to be dealt with. The Adrenalin compound, by slowing the circulation through the part prevents the anesthetic agent from being rapidly washed away. The writer has used this method in thirty operations, including the radical cure of hernia, strangulated hernia, orchidectomy, removal of varicose veins, psoas abscess, loose body in knee, tumor of neck (actinomycosis), colotomy, Thiersch skin grafting, and cystic adenoma of the thyroid. — *From a clinical lecture delivered at University College Hospital, London, July 11, 1903, by Arthur E. J. Barker, F. R. C. S., Eng., appearing in The Lancet for July 25, 1903.*

GELATIN IN THE TREATMENT OF HEMOPHILIA—Hesse (*Therapie der Gergenwart, (Medical Age)*) reports an interesting case of hemophilia which he treated by the internal administration of gelatin. The boy, eight years old,



giving a hereditary history of a bleeder, suffered from frequent nosebleed, and short walks or other exertions would cause hemorrhages in the joints. He was treated with baths, iron, cod-liver oil, etc., without effect. For half a year he received 200 grammes of a 10-per-cent solution of gelatin daily. The result was a good one, as the boy can now take the severest exercise, and no hemorrhage has evidenced itself for over a year.

BLOOD-SERUM, HUMAN, THE BACTERICIDAL ACTION OF.—*The Deutsche Archive fuer klinische Medicine* contains an article by Lowenstein showing results of experiments on blood-serum of healthy human subjects to determine its bactericidal properties, its effect on disease. He found the serum of adults to possess strong bactericidal action when used against typhoid and cholera bacilli, but weak against anthrax.

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## CLINICAL PSYCHIATRY.

SCIENTIFIC WORK IN PSYCHIATRY.—Thus pertinently discourses in recognition of modern advance in psychiatry, *The Boston Medical and Surgical Journal* of July 9: The spirit of research which during the last century has pervaded all fields of human activity, and which has never been more active than in recent years, has exerted a potent influence on the institutions for the care of the insane throughout the world. From Pinel's day what had been virtually *prisons* began to become asylums. Forty years ago they began to change, owing largely to Griesinger's activity, from *asylums* to *hospitals*. This latter change was slow at first, but has advanced more and more rapidly, especially in the last decade. It has involved different conceptions and methods from those formerly in vogue—the inmates are becoming "patients," not "boarders;" their care-takers are becoming "nurses," not "keepers," and are more and more being trained in their duties; the medical staffs are increasing relatively to the number of patients;

the patients are being more carefully observed and studied as to their mental and physical conditions; active treatment is being better directed to the improvement of these conditions; careful search for and scientific investigation of the causes underlying these conditions are being instituted and instruction to students is being given.

In all countries there are still some asylums. The majority of institutions in this country have, however, at least begun to be hospitalized, while some have caught the real spirit and full significance of the movement. Their annual reports generally show pretty clearly their stage of progress. Some, with large capacity, small medical staff, relatively few admissions and discharges in proportion to the capacity, are hardly out of the asylum stage—their reports deal only with financial and administrative matters. Others have increased the relative size of the medical staff, established clinical laboratories and infirmary wards, train their nurses, and seek to give special care to recent cases. Their reports give, in addition to the financial and administrative data, statistics as to the number of autopsies, blood counts, urine analyses, sputum examinations and Widal tests, and other bacteriological examinations. Such institutions are becoming hospitals; and the work they do, while not advancing the bounds of our knowledge of insanity, yet indicates the growth of the hospital idea and the part these institutions are taking in it, and marks distinct progress towards a higher goal. A few institutions are in reality hospitals in the fullest sense of the term—places not only for the care and treatment of patients, but for the study of their conditions, the investigation of the causes of the conditions, and the spread of knowledge thus gained through instruction to students. This is notably true of the McLean Hospital at Waverly in this state, the annual report of which has recently appeared. The record of the work which it has undertaken and is carrying on and the methods employed in pursuance of this work invite comparison with the best similar institutions in this or other countries. According to this record, the year just passed marks progress especially in the line of chemical investiga-

tion into the metabolic changes which may reasonably be considered to underlie the phenomena of many mental diseases. This work is the logical and normal development of a line of research conceived in the early 80's, begun in a small way with inadequate laboratory facilities and untrained workers in the late 80's, advanced during the following decade in enlarged laboratories but still by assistants not specially trained in the methods of physiological chemistry, but now, and for the last three years, being prosecuted in a thoroughly well-equipped laboratory by physiological chemists whose published papers have received recognition in the special journals and laboratories both in this country and abroad.

Another two columns follow in the line of suggestion for further research and in criticism.

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## NEURODIAGNOSIS.

CENTRAL RETINAL CHANGES IN MENTAL DISEASES.—Kuhnt and Wokenius. (*Zeitschrift fuer Augenheilkunde*, February, 1903.) The authors examined five hundred and eleven individuals and of these one hundred and forty-three showed changes in the eye grounds. Four times pronounced atrophy, once choked disc, four times neuritis optica without reaching the grade of choked disc, once neuro-retinitis, eleven times marked hyperemia, twelve times marked palor of the nerve without any further evidence of atrophy, seventeen times marked palor of the temporal half of the disc, four times retinal hemorrhages, once retinitis punctata albicans, three times connective tissue changes in the retina, twenty-seven times Uhthoff-Klein cloudings in the retina, thirty-four times disc-shaped cloudings in the macular region, forty-two times foveal changes, three times central chorioido-retinitis, fourteen times central chorioiditis, thirteen times central myopic chorioiditis, three times glaucoma simplex. As regards the special changes in the central part of the retina we have two categories, first where there is a marked clouding of

the retina of the entire macula lutea, and second where there were distinct round reddish yellow spots which surrounded and took in the fovea. It was interesting to note whether this spot in its development and character bore any relation to certain forms of mental disease. It was observed nineteen times in paranoia, and dementia, twice in paralytic dementia, twice in periodic dementia, once in senile dementia, seven times in mental disturbances associated with epilepsy, twice in melancholia, four times in mania, twice in imbeciles, and once in idiocy. In all the cases the urinary examination was negative. In all the cases where there was disc-shaped clouding of the macular region and the yellow spot at the fovea only one case showed anatomical changes in the papilla and that was in a paralytic with well advanced optic nerve atrophy. There was never noted in the periphery of the eye-grounds anything which could be attributed to the mental diseases. Scotomata as a rule were absent and the visual acuity as a rule was unaffected to any great degree. The work at least suggests the importance of examining the macular region and fovea of individuals affected in this way.—*Annals of Ophthalmology*.

THE EYE SYMPTOMS IN DISEASES OF THE PONS AND THE MEDULLA OBLONGATA.--Hirsch, R. (*Zeitschrift fuer Augenheilkunde*, April, 1903.) The author has made an interesting study of this class of cases and comes to these conclusions. if we separate abducens paralysis and a choked disc from the other ocular symptoms which were observed (and these by the way are not in themselves local symptoms of disease of the medulla) there remains only one other ocular focal symptom for tumors of this region. Undoubtedly in the presence of bulbar symptoms, choked disc (excluding external diseases) can help to a diagnosis of tumor of the medulla oblongata. It is found in one-third of the cases and no doubt more accurate and frequent examinations will demonstrate its presence in advanced stages, thus making easy the very difficult diagnosis of tumors of this region. Almost as frequent as



choked disc is the loss of light reflex and presence of widely dilated pupils, which conditions one might think attributable to the choked disc, but in fifteen per cent. of the cases a normal eyeground was found. Bach and Myer have found on the basis of numerous investigations that there was a close connection between the pupillary reflex and the medulla oblongata. They assume the existence of a reflex center in the medulla which limits the pupillary reaction and when there is a loss of light reflex it is probable that we have an irritation of this centre and when the pupillary reaction is preserved we must either have this intact or completely destroyed. We have then in diseases of the medulla choked disc and loss of pupillary light reflex paralysis of the abducens, ptosis, exophthalmus, and paralytic strabismus, but it is true that not one of these symptoms is pathognomic for diseases of the medulla oblongata.—*Annals of Ophthalmology*.

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## NEUROPHYSIOLOGY.

IRON AND ARSENIC AFTER HEMORRHAGE.—Observations of such a scope as those recently made by Baumann (*Journal of Physiology*, February, 1903) are of value alike to the physician, the surgeon and the neurologist. In this research the *British Medical Journal* notes editorially: A quarter of the total blood in the body was drawn from a series of dogs, and subjected to examination as regards the specific gravity, rate of coagulation, number of red blood-corpuscles, number and variety of white corpuscles, and quantity of water, solids, ash, proteids, and hemoglobin. Some were then given inorganic iron (Blaud's pill, gr. 15, t. i. d.), others organic iron (a solution of iron albuminate), others arsenic (liquor arsenicalis, 6 to 12 minims a day), and lastly, in two cases, the same quantities of iron and arsenic were given together. In four animals no drug was given. At the end of a week the blood was withdrawn and examined in each case in exactly the same way as before. The condition of the blood a week after the

hemorrhage in those cases in which no drug was used formed a standard of comparison. When iron in an inorganic form was given the deterioration produced by the loss of blood was considerably lessened, and the hemoglobin was even increased above its original value. With the albuminate of iron similar but less striking results were obtained. Arsenic alone produced little effect, while iron and arsenic together were found to give optimum results, both as regards the number of the corpuscles and the solids of the plasma, while the proportion of hemoglobin was but little less than normal.

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## ANTHROPOLOGY.

THE LARGEST HUMAN BEING IN THE WORLD was recently discovered by scientists in Kustake, Russia, and taken to Berlin, where he has created a sensation.

This man, Feodor Machow, is not only the largest man alive, but his measurements are greater than those of any known giant of the past two generations.

Though but 22 years old, he is 7 feet 9 inches tall and remarkably proportioned for his height.

The Anthropological Society of Berlin has taken a very likely interest in Machow, and many learned men have measured and studied him.—*Weekly Medical Review*.

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## REVIEWS, BOOK NOTICES, REPRINTS, ETC.

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BILHARZIA HÆMATOBIA. By Edwin Walker, M. D.,  
Ph. D., Evansville, Ind.

This is an excellent clinical report of a case which was under the author's care and observation nearly three years, with accurate descriptions and drawings of the microscopical appearances of the parasite, embryos and ova, besides a history of the parasite, synopsis of the literature, treatment, bibliography, etc.

This is the second case reported in this country. The first case, to which the author refers, was reported (*Western Medical Reporter*, March 15th, 1882) by Dr. David S. Booth, Sr., and was received with considerable skepticism by the profession and led to some criticism by the medical press.

Contrary to all previously reported cases, neither of these patients had ever resided or visited in Egypt or Cape Colony (the recognized habitat of the parasite); in fact, neither had ever previously resided out of Southern Illinois—truly “modern Egypt.”

Since the prognosis is so unfavorable that it is said to be doubtful whether any of the patients entirely recover, the subsequent history of these cases is of clinical interest.

The case of Dr. Walker, owing to change of residence, was subsequently under the professional care of Drs. T. N. & H. N. Rafferty, of Robinson, Ill., from whom I have received an excellent case record, with drawings, etc., from which we learn that the patient had at different times hemorrhages from the lungs, stomach and bowels,—in all of which the presence of the parasite was demonstrated,

besides being found in blood from the peripheral circulation, in the urine and fluid from a cyst in communication with the bladder. Although the patient is now improved in health, she is a semi-invalid.

In the case reported by Dr. Booth, the parasites were only found in the urine, from which they soon disappeared. The patient made a good recovery from the general symptoms, has had no recurrence, and is now, over twenty years thereafter, in good health.

DORLAND'S AMERICAN ILLUSTRATED MEDICAL DICTIONARY. Third edition, thoroughly revised.

The American Illustrated Medical Dictionary. For Practitioners and Students. A Complete Dictionary of the Terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry and other kindred branches, including much collateral information of an encyclopedic character, together with new and elaborate tables of Arteries, Muscles, Nerves, Veins, etc.; of Bacilli, Bacteria, Micrococci, Streptococci; Eponymic Tables of Diseases, Operations, Signs and Symptoms, Stains, Methods of Treatment, etc., etc. By W. A. Newman Dorland, A. M., M. D., editor of the "American Pocket Medical Dictionary." Handsome large octavo, nearly 800 pages, bound in full flexible leather. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Price \$4.50 net; with thumb index \$5.00 net.

The rapid exhaustion of two large editions prove the appreciation of this excellent work by physicians and students. This third edition contains several hundreds of new terms of medical sciences. The entire work shows evidence of careful revision, and many of the tables, notably those of Acids, Bacteria, Stains, Tests, Methods of Treatment, neurology and psychology, etc., have been amplified, and their practical value greatly increased.

The illustrations, especially of the nervous and vascular systems in relation to important viscera, are specially commendable. The definitions are characterized by brevity and completeness exceptionally combined. The book is attractively gotten up on good paper, printed with new and



excellent type after the characteristic manner of this well-known publishing house.

THE SMALLER POCKET EDITION of this excellent dictionary by the same author and from the same publishing house, price \$1.00, is a beautiful, handy and satisfactory companion lexicon for class room emergencies.

A THESAURUS OF MEDICAL WORDS AND PHRASES. By WILFRED M. BARTON, M. D., Assistant to Professor of Materia Medica and Therapeutics, and Lecturer on Pharmacy, Georgetown University, Washington, D. C.; and Walter A. Wells, M. D., Demonstrator of Laryngology and Rhinology, Georgetown University, Washington, D. C. Handsome octavo of 534 pages. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Flexible Leather, \$2.50 net; with thumb index, \$3.00 net.

This work is the only Medical Thesaurus ever published. It performs for medical literature the same services which Roget's work has done for literature in general; that is, instead of, as an ordinary dictionary does, supplying the meaning to given words, it reverses the process, and when the meaning or idea is in the mind, it endeavors to supply the fitting term or phrase to express that idea. To obviate constant reference to a lexicon to discover the meaning of terms, brief definitions have been given before each word. As a dictionary is of service to those who need assistance in interpreting the expressed thought of others, the Thesaurus is intended to assist those who have to write or to speak to give proper expression to their own thoughts. In order to enhance the practical application of the book cross references from one caption to another have been introduced, and terms inserted under more than one caption when the nature of the term permitted. In the matter of synonyms of technical words the authors have performed for medical science a service never before attempted. Writers and speakers desiring to avoid unpleasant repetition of words will find this feature of the work of invaluable service. Indeed, this Thesaurus of medical terms and phrases will be found of inestimable value to all

persons who are called upon to state or explain any subject in the technical language of medicine.

#### ARCHIVES LATINES DE MEDECINE ET DE BIOLOGIE.

This is one of the most important of the meritorious publications since the assembling of the last International Congress at Madrid.

Publiés sous la direction de Albert Robin et Raphael Blanchard, Paris; D. Carlos Maria Cortezo et D. Santiago Ramón y Cajal, Madrid; Eduardo Maragliano, Gênes, et Battista Grassi, Rome; Rédacteur en Chef, M. le Doct. Gustavo Pittaluga. Rédaction et administration, Madrid, calle del Conde de Aranda, No. 18. 18 francs pour année.

The founders and promoters of this great scientific medico-biologic enterprise make the following introductory announcement:

“Les Archives Latines de Médecine et de Biologie, dont la création a été préparée pendant le dernier Congrès international de Médecine de Madrid (Avril 1903), sont destinées à la publication de *Mémoires originaux*, de *Revue critiques* et d’une *Bibliographie* aussi complète que possible sur les questions de Biologie qui se rattachent à la Pathogénie des maladies en général, à la Physiologie Pathologique, et enfin à la Thérapeutique, qui est la raison d’être de la Médecine pratique.”

NERVOUS AND MENTAL DISEASES. By Archibald Church, M. D., Professor of Nervous and Mental Diseases and Head of Neurologic Department, Northwestern University Medical School; and Frederick Peterson, M. D., President New York State Commission in Lunacy; Chief of Clinic, Department of Nervous Diseases, College of Physicians and Surgeons, New York. *Fourth Edition. Thoroughly Revised and Enlarged.* Handsome octavo volume of 922 pages, with 338 illustrations. Philadelphia, New York, London: W. B. Saunders & Company, 1903. Cloth, \$5.00 net; Sheep or Half Morocco, \$6.00 net.

This is the fourth edition of this excellent work in as many years. The revision has been thorough, all the la-

test knowledge on the subjects having been incorporated, including the recent work regarding the healing of nerves. The subject of Intermittent Limping, now definitely known to depend upon a lesion of the posterior root ganglia, and Herpes Zoster have been given a section each. Another addition is the discussion of that form of epilepsy marked by myoclonus, furnishing the so-called Combination Disease. Further importance has been given to symptomatology and symptomatic disturbances, and the diagnostic value of asteragnosis and of Kernig's Sign, which has been elaborated.

There have been added a large number of new and excellent illustrations. A useful addition to the portion of the book devoted to insanity is a new section consisting of a critical review of the German Schools.

In many ways this work will be found of unusual assistance not only to the specialist, but also to the student and general practitioner.

The merits of this work and the well-known ability of its authors, though they have been commended in former notices, are still better displayed in this latest edition.

**TUMORS AND PSEUDO-TUMORS** is an excellent tabulated exhibit of morbid growths tabulated by Dr. Edward Curtis Hill, of Denver, Colorado, which may be had for the asking. It is copyrighted by the enterprising house of Battle & Co., of Bromidia fame, St. Louis.

The chart would be an excellent sheet for framing for ready reference after reading the contributions from various reputable medical sources concerning Bromidia and Echthol, two standard preparations of this well-known and reputable St. Louis pharmaceutical house.

**THE LAW AND THE DOCTOR**, Volume 1. The Physician's Civil Responsibility for Malpractice. Published and sent out by the Arlington Chemical Co., of Yonkers, New York, makers of Liquid Peptonoids.

This enterprising company of therapeutic caterers to the medical profession also send accompanying this valu-

able brochure, which gives the photogravure of Beek, Hamilton, Taylor and Godkin, an instructive leaflet on aseptic nutrition in intestinal toxhæmia, which is a timely and valuable reminder of treatment.

THE ENGLISH ARCHIVES OF NEUROLOGY. The April 1903 No. of *The Journal of Mental Science* notes the advent of the second volume of the *Archives of the Pathological Laboratory of the London County Asylums*, edited by the director, Dr. Mott, and says it very fully justifies the hopes that were expressed at the establishment of the laboratory, of most important help in the advancement of psychiatric science.

This volume is a monument of the vast amount of clinical and pathological matter that is at the service of Dr. Mott and his able coadjutors; of the huge amount of work achieved in the laboratory, as well as of the careful critical faculty and great ability in lucid exposition possessed by the editor and principal contributor.

The relation of syphilis to general paralysis, which Dr. Mott has, from the outset of his work, steadily pursued, is still the leading subject. Dr. Mott devotes an article of over three hundred pages to the exposition of his views that general paralysis is etiologically identical with tabes dorsalis. His views are supported by valuable papers from Dr. Joseph Shaw Bolton and from Dr. George A. Watson.

Dr. Bolton also deals with the morbid anatomy of mental disease in general, and Dr. Tredgold treats of the importance of alcoholism and tuberculosis in the production of idiocy and imbecility; and there are other papers of the utmost value and importance.

These various contributions will be dealt with in reviews, and we can only draw the attention of our readers to the great importance of this work.

At last it may be said, without undue exaltation, that England possesses a school of neuro-pathological research which need not fear comparison with the best of its Continental contemporaries; and it must not be forgotten that this is due to the liberal public spirit of the London County



Council and to the broad-minded initiative of our confrère, Sir William Collins.

**TABES UND PSYCHOSE.** S. Karger, Verlagsbuchhandlung für Medicin, Berlin, sends us a copy of Cassirer, *Tabes and Psychose*, fourth edition.

Dr. R. Cassirer is assistant at the nervous polyclinic to Professor Oppenheim and privat-docent of the Berlin university, which is sufficient recommendation of the author as to his ability to accurately observe and properly record his observations. The book is written in the German text.

**THIRTY POISONOUS PLANTS** of the United States, by V. K. Chestnut, Assistant Botanist U. S. Department of Agriculture, is an interesting contribution to the subject of toxicology for physicians as well as farmers to read. It is sent out by the Department of Agriculture, Farmers' Bulletin No. 86.

**ANNUAL REPORT** of the Board of Directors of the St. Louis Public (Free) Library 1901-'02, makes a good showing of public interest and prosperity.

**REPORT OF DR. SINCLAIR**, inspector-general of the insane, to the Legislative Assembly of New South Wales, for the year 1902-3.

Report of a Case of Typhoid Perforation with General Peritoneal Infection and five other consecutive cases of General Suppurative Peritonitis; all recovered. J. B. Murphy, A. M., M. D., Chicago.

A Case of Progressively Developing Hemiplegia, Later Becoming Triplegia, Resulting from Primary Degeneration of the Pyramidal Tracts. By Charles K. Mills, M. D., and William G. Spiller, M. D.

Sixtieth Annual Report of the Utica State Hospital at Utica to the State Commission in Lunacy, for the Year Ending September 30, 1902. Resident Medical Officers:

Harold I. Palmer, M. D., Superintendent and Physician; George H. Torney, Jr., M. D., First Assistant Physician; Edward G. Stout, M. D., Second Assistant Physician; Theodore I. Townsend, M. D., Assistant Physician; Julius E. Haight, M. D., Medical Interne; Clara Smith, M. D., Woman Physician.

Additional Cases in which the Author's Silver Filagree was Used for the Radical Cure of Abdominal Hernia. By Willard Bartlett, A. M., M. D., of St. Louis, Mo., Demonstrator of Surgical Pathology, Medical Department of Washington University.

An Improved Filagree for the Repair of Large Defects in the Abdominal Wall. By Willard Bartlett, M. D., of St. Louis, Mo., Demonstrator of Surgical Pathology, Medical Department of Washington University.

Some Experiences with the X-ray as a Therapeutic Agent. Report of the Cure of a Case of Alveolar Melanotic Sarcoma. Edwin Walker, M. D., Ph. D., Evansville, Ind.

The Nature and Genesis of an Insane Delusion. By J. W. Wherry, M. D., Assistant Physician Clarinda State Hospital, Clarinda, Iowa.

Additional Notes Upon Tent Treatment for the Insane at the Manhattan State Hospital, East. By Drs. A. B. Wright and C. Floyd Haviland.

Twenty-third Annual Report of the Elizabeth General Hospital and Dispensary, Elizabeth, New Jersey. Fiscal Year Ending Dec. 31, 1902.

Illustrations of Mixed Infections in Pulmonary Phthisis, with Notes on Comparative Treatments. By Paul Paquin, M. D., Asheville, N. C.

The Treatment of Menstrual Disorders, with Special Reference to Cases in Women Suffering from Mental Dis-

eases. George S. Walker, M. D., First Assistant Physician in Charge of Female Department Western State Hospital, Staunton, Va.

Why Have There Been So Few Results From Original Research in State Hospitals for the Insane? By J. W. Wherry, M. D., Assistant Physician Clarinda State Hospital, Clarinda, Iowa.

Report of a Case of Tumor of the Brain Symptomatically Relieved by Exploratory Operation Upon the Skull. By William Broaddus Pritchard, M. D. and John A. Wyeth, M. D., New York.

Twenty-fourth Annual Report of the Superintendent of the Binghampton State Hospital at Binghampton, N. Y., to the State Commission in Lunacy, for the Year Ending September 30, 1902.

Penetrating Wounds of the Heart, with Suturing of the Wounds—Report of a Case. By H. L. Nietert, M. D., St. Louis, Mo., Surgeon-in-Charge of the St. Louis City Hospital.

Practical Management of Acne and Rosacea. By Thurston Gilman Lusk, M. D. Adjunct Professor of Diseases of the Skin, New York Post-Graduate Medical School and Hospital.

A Graded and Systematized Plan of Out-door Exercise for the Demented Insane. By Chester L. Carlisle, M. D., Manhattan State Hospital, East, Ward's Island, New York City.

Ureter-Catheterism: Its Purposes and Practicability. With the Presentation of a Ureter-Cytoscope for Male and Female. By Bransford Lewis, M. D., of St. Louis.

Neurologic Progress and Prospects: Chairman's Address, Delivered Before the Section on Nervous and Mental

Diseases of the American Medical Association, at the Fifty-fourth Annual Session, held at New Orleans, May 5-8, 1903. By F. W. Langdon, Cincinnati.

The Fourteenth International Medical Congress at Madrid. By A. E. Macdonald, M. D., of New York, Delegate from the American Medico-Psychological Association.

Seventh Annual Report of the Manhattan State Hospital (the Manhattan State Hospital, East—Ward's Island) at New York, to the State Commission in Lunacy.

A Pharmacological Study of an Aseptic Preparation of Ergot devised for Hypodermic and Internal Administration. By E. M. Houghton, Ph. C., M. D., Detroit, Mich.

The Wertheim Operation for Cancer of the Uterus; Report of a Case. By H. S. Crossen, M. D., St. Louis, Mo.

Abstract of a Memorial to the Congress of the United States Authorized by the American Humane Association.

Fear as an Element of Nervous Diseases and its Treatment. By John Punton, M. D., Kansas City, Mo.

Systemic Infection Due to Natural Teeth Conditions. By D. D. Smith, D. D. S., M. D., Philadelphia.

Annual Report of the Essex County Hospital for the Insane, Newark, N. J., for the Year Ending April 30, 1903.

The Negro Problem from the Physician's Point of View. By W. T. English, A. M., M. D., Pittsburg, Pa.

Galvanism as a Remedy for Uterine Hemorrhage. By Edwin Walker, M. D., Ph. D., Evansville, Ind.

Diagnostic and Prognostic Data in Nervous and Mental Diseases. By William Broaddus Pritchard, M. D., Adjunct



Professor of Mental and Nervous Diseases, New York Polyclinic; Consulting Neurologist Smith Infirmary, Staten Island.

A Contribution to the Surgery of the Gall Bladder and Ducts. By Alexander Hugh Ferguson, M. D., C. M., Chicago.

The Seventy-ninth Annual Report of the Officers of the Retreat for the Insane, at Hartford, Conn.

Is Science Advanced by Deceit? A Question and a Criticism. By Albert Leffingwell, M. D.

On the Surgery of the Hypertrophied Prostate. By Bransford Lewis, M. D., St. Louis, Mo.

A Gigantic Medical Fraud Detected and Exposed. By John Punton, M. D., Kansas City, Mo.

On the Properties of the Field Surrounding a Crookes Tube. By Arthur W. Goodspeed.

Hyoscine in the Treatment of Morphinism. By T. D. Crothers, M. D., Hartford, Conn.

Hypnotism and Hysteria. By William Broaddus Pritchard, M. D., of New York.

Bladder Symptoms and the Uterus. By. H. S. Crossen, M. D., St. Louis, Mo.

Mariani's Coca Leaf. Review for Physicians Advocating the Rational Uses of Coca.

Abstract of the Report on Vivisection adopted by the American Humane Association.

Preliminary Report of Anterior Transplantation of the Round Ligaments for Displacements of the Uterus. By

Alex. Hugh Ferguson, M. D., Professor of Surgery, Chicago Post-Graduate Medical School, Chicago.

The Dry Method in Surgery. By Edwin Walker, M. D., Ph. D., Evansville, Ind.

Mucous Surfaces. Rio Chemical Co., 56 Thomas Street, New York, U. S. A.

Digestive Disorders in Consumption. By Paul Paquin, M. D., Asheville, N. C.

Shall Science do Murder? From the *Chicago Evening Post*, of May 18, 1899.

Traumatic Pneumonia. By W. T. English, A. M., M. D., Pittsburg, Pa.

The Diagnosis of Gallstones. By J. B. Murphy, M. D., Chicago, Ill.

Reflex Neuroses. By Wm. Cheatham, M. D., Louisville, Ky.

Stricture of the Esophagus. By Edwin Walker, M. D.

Scientific Chicanery: Does it Pay?—*Am. Humane Ass'n.*

Facts about Vivisection which Cannot be Denied.

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A detailed decorative border surrounds the text, featuring a variety of leaves, vines, and flowers. At the top, there are clusters of leaves and small berries. On the right side, a large, stylized flower with five petals is prominent. The bottom of the border features large, broad leaves. The entire border is rendered in a black and white line-art style.

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## PUBLISHER'S DEPARTMENT.

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A 'POSSUM DYSPEPSIA DREAM.—Our many Southern readers, familiar as they are with the negro manner of speech, will appreciate this colored dialect poem of Frank L. Stanton, which we find among his other Sunbeams from the South, as a good picture of a "colored 'possum eater's nightmare resulting from the gastro-cerebral vagus reflex somnolent delirium of apepsia opossum:"

### THE DEACON'S 'POSSUM DREAMS.

Dey warn't no 'possum eater lak de deacon in de town—  
De 'posums seen him comin' en dey went ter stirrin' roun'!  
Kaze he'd ketched 'em by de dozen, en he'd eat 'em by de poun',  
All time a-shoutin' "Hallelujah!"

He lef' de folks de turkey, en de brown en juicy duck,  
En all de yuther eatin' dey could pile up on de truck,  
En he'd headed for de 'possum, wid a rabbit foot for luck,  
All time a-shoutin' "Hallelujah!"

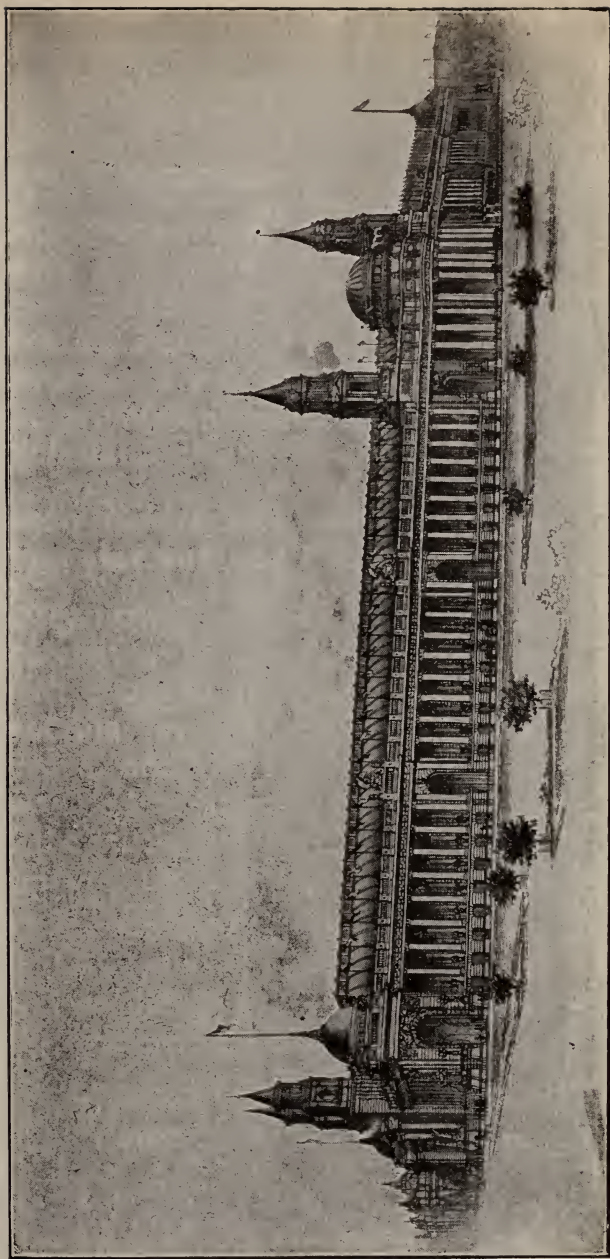
Now, it chance, one night, de deacon, w'en no uther folks wuz nigh,  
Had a private 'possum banquet, en des cyarved 'em low en high!  
En big de-sertin' dishes dat wuz piled wid 'possum pie—  
En O, how he hollered "Hallelujah!"

En he riz up fum dat table, mighty full en sleepy-head,  
En den he crawled ter kiver, en des snored ter wake de dead!  
En der ghosts er all de 'possums tuck dey station on de bed,  
En all went ter screeching "Hallelujah!"

De room wuz full er 'possums, dat no mo' would see de limb—  
Fum de o'es' ter de younges'—fum de fat ones ter de slim;  
En dey danced eroun' de deacon, en played leapfrog over him,  
All time a 'screechin' "Hallelujah!"

He riz up, des a-shakin'—lak de devil had him, sho'!  
He hollered: "Lawd have mussy!" en he headed fer de do'!  
But he had ter step on 'possums ef he ever hit de flo',  
En no time ter holler "Hallelujah!"





VARIED INDUSTRIES BUILDING, LOUISIANA PURCHASE EXPOSITION, ST. LOUIS, 1904.

Dey hopped 'pon top his shoulders—smashed de crock'ry on de she'f,  
 En pelted him wid pillers, 'twel dey warn't fedder lef'!  
 En snatched him so bal' headed dat he didn't know hisse'f,  
 All time a-screechin' "Hallelujah!"

Den he made a big miration—fer 'twuz dar he couldn't stay—  
 Went crawlin' up de chimbly, en got fastened half de way!  
 En de 'possums fanned de fire, en dey roasted him 'twel day,  
 All time a 'screechin' "Hallelujah!"

En we'n de daylight foun' him, en he come a-slidin' down,  
 He wuz des de blackes' nigger fer a hundred mile eroun'!  
 En de folks, dey didn't know him, en dey run him out er toun,  
 De whole crowd a-screechin' "Hallelujah!"

MANY OF THE GENITO-URINARY DISEASES, which have heretofore depended for a cure upon the different salts of lead, zinc, copper, or silver, now yield permanently and promptly to S. H. Kennedy's Ext. of *Pinus Canadensis*. In all inflammatory processes in fact, whatever may be the stage of malady, the remedy acts successfully. Through its astringent properties it lessens the caliber of the arterioles, minute vessels and ducts, favorably influencing their secretions, and rapidly bringing about resolution. Even in rheumatism and in various other conditions requiring an external stimulating application, it is a very superior therapeutic agent, and internally it is an efficient remedy in pyrosis, acid stomach, colic, diarrhea and dysentery.

EGYPT, with nearly ten million people, has only one lunatic asylum.—*St. Louis Med. Review*.

"Has there any old fellow got mixed with the boys?  
 If there has take him out, without making a noise.  
 Hang the Almanac's cheat and the catalogue's spite!  
 Old Time is a liar. We're twenty *to-night*.  
 We're twenty! We're twenty! Who says we are more?  
 He's tipsy—young Jackanapes! Show him the door.  
 Gray temples at twenty? Yes, white, if you please.  
 Where snowflakes fall thickest there's nothing can freeze.  
 Was it snowing I spoke of? Excuse the mistake.  
 Look close—you will not see a sign of a flake.  
 We want some new garlands for those we have shed;  
 And these are white roses in place of the red."

—Dr. Oliver Wendell Holmes, at a Harvard Reunion.

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Edward Jenner, who introduced vaccination, was born in Gloucestershire, England, May 17, 1749: died January 26, 1823. He was apprenticed to a suregon, studied under the celebrated Hunter, and when 24 began to practice medicine. His life was written by Doctor J. Baron. Jenner found time to worship occasionally at the shrine of the muse. While he was not noted as a poet, yet some of his metrical compositions were quite clever. It is said that on receiving an invitation from a friend to make a country excursion he sent his excuse in the form of the following poem:

The hollow winds begin to blow,  
 The clouds look black, the glass is low,  
 The soot falls down, the spaniels sleep,  
 And spiders from their cobwebs creep.  
 Last night the sun went pale to bed,  
 The moon in halos hid her head.  
 The boding shepherd heaves a sigh,  
 For see! a rainbow spans the sky.  
 The walls are damp, the ditches smell,  
 Closed is the pink-eyed pimpernel.  
 Hark! how the chairs and tables crack!  
 Old Betty's joints are on the rack.  
 Loud quack the ducks, the peacocks cry  
 The distant hills are looking nigh.  
 How restless are the snoring swine—  
 The busy flies disturb the kine.  
 Low o'er the grass the swallow wings;  
 The cricket, too, how loud it sings.  
 Puss on the hearth, with velvet paws,  
 Sits smoothing o'er her whiskered jaws.  
 Thro' the clear stream the fishes rise,  
 And nimbly catch the incautious flies.  
 The sheep are seen with eager light,  
 Cropping the meads with eager bite.  
 Tho' June, the air is cold and chill;  
 The mellow blackbird's voice is still.  
 The glow-worms, numerous and bright,  
 Illumined the dewy dell last night.  
 At dusk the squalid toad was seen  
 Hopping, crawling, o'er the green.



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**which subscription may be sent to the office of publication, Lakeside Press, Chicago, or to the Editorial Office, Ashland, Wisconsin.**

The frog has lost his yellow vest,  
 And in a dingy suit is dress'd.  
 The leech, disturbed, is newly risen  
 Quite to the summit of his prison.  
 The whirling wind the dust obeys,  
 And in the rapid eddy plays.  
 My dog, so altered in his taste,  
 Quits mutton bones on grass to feast  
 And see yon rooks, how odd their flight,  
 They imitate the gliding kite,  
 Or seem precipitate to fall,  
 As if they felt the piercing ball.  
 'Twill surely rain—I see with sorrow  
 Our jaunt must be put off to-morrow.

—EDW. JENNER.

The *Republic* of this city reproduces the above poem with the face and signature of the distinguished discoverer of vaccini aamong its "poems worth knowing." This is certainly a very practical poem, such as might properly emanate from so practical and observant an author. It is a good one for the weather bureau and country doctor, fisherman and sailor.

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IT IS A BAD HABIT to whip up the waning physiologic functions of elderly people with strychnine or alcohol; after a short time the deleterious reaction is more certain than the primary stimulation. These patients need help of a character not furnished by a powerful stimulant—their functions need gentle reinforcement and, experience proves, the best agent for this purpose is Gray's Glycerine Tonic.

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Another strong reason for the use of Gray's Tonic in elderly people is that it wards off the tendency to inflammations of the respiratory organs; this fact has been noted and commented upon for many years past and is doubtless due to the fortifying action of the remedy upon the general constitution and its specific influence upon the respiratory tract.

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THE ADVANTAGES OF COMBINING REMEDIES.—John Moir, L. R. C. P. & L. R. C. S. Ed., in "*The Therapist*," London, says: "Latterly I have been using Heroin very extensively in tablet form in combination with Antikamnia, and found the combination to act charmingly, both for relieving pain and in procuring comfortable, restful sleep, so very desirable and necessary after sleepless periods, caused by a protracted, irritable cough. The soothing rest in these cases was also characterized by a light but well-marked fall in temperature; but the greatest benefit of all in this treatment is that, although the distressing frequency of the respiration was reduced, it was stronger and heavier and less spasmodic, with a beneficial effect upon the heart at the same time. The tablets I use contain Antikamnia 5 grs., Heroin Hydrochlor.  $1/12$  gr., and were given every two, three or four hours, in cases of cough, bronchitis and respiratory affections generally, according to the severity of the symptoms, but usually one tablet every three hours. I found that the respiration was rendered easy, the expectoration was loosened without difficulty, and sleep was more readily obtained than with morphine and unlike morphine there were no after-effects. I have, personally been taking Antikamnia and Heroin Tablets three times a day for an irritating cough, with occasional inclination to breathlessness; so that I have every reason to be thoroughly satisfied with them as sedatives and calmatives."

RADIUM AND CREATION.—And, if radium does undermine the time-honored theory of the conservation of energy, it is an intimation of things which are precious to philosophy, if not to practical life. The conservation of energy shuts us up in a box, into which nothing new can enter, from which nothing can escape. Among other things which are thus shut out, or in, is the Creator Himself.

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But the Creator is infinite; how can He be enclosed or excluded? The destruction of the conservation of energy theory would discredit that other great creed of the last century—the alleged truth of evolution. Man would not have been evolved, through interminable continuous processes, from the protoplasmic cell; but each successive order in nature would be distinctly created, without continuity. There would be some—and that the characteristic—thing or principle in each step of the series which had not been in the series up to that time. And the Creator, consequently, would be relieved from the present charge of having set a machine going in the beginning which has been running ever since without His interference, leaving Him to amuse Himself otherwise or not at all, and He would be shown in a state of constant and infinite activity.—*Julian Hawthorne in September Booklovers Magazine.*

THE PENNSYLVANIA STATE BOARD OF HEALTH AND "VIN MARIANI."—On April 22d last the Governor of Pennsylvania approved an excellent law passed by the Legislature entitled "An Act regulating the sale or prescription of cocaine, or of any patent or proprietary remedy containing cocaine, and prescribing penalties for the violation thereof." A question arose as to whether the well-known "Vin Mariani," as a coca preparation, contained cocaine. The State Board of Health, on being appealed to, submitted the question to the analytical chemists, Prof. Sadtler and Dr. Genth, the samples examined being purchased by them in drug stores of their own selection. The analysis showed that "Vin Mariani contained no cocaine."—(*Monthly Cyclopædia of Practical Medicine, Phila., Sept., 1903.*)

THE CHANGE OF CLOTHING.—In an excellent article in *The Delineator* for October, on the Hygiene of Clothes, Dr. Grace Peckham Murray makes the following points in regard to seasonable and unseasonable clothing, which are particularly appropriate at this time: The practical utility of clothing is to retain the heat of the body, and consequently it should be adapted to the climate and season. Too much clothing is as injurious as too little, for



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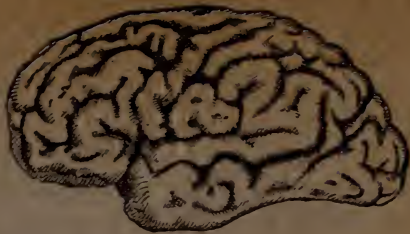
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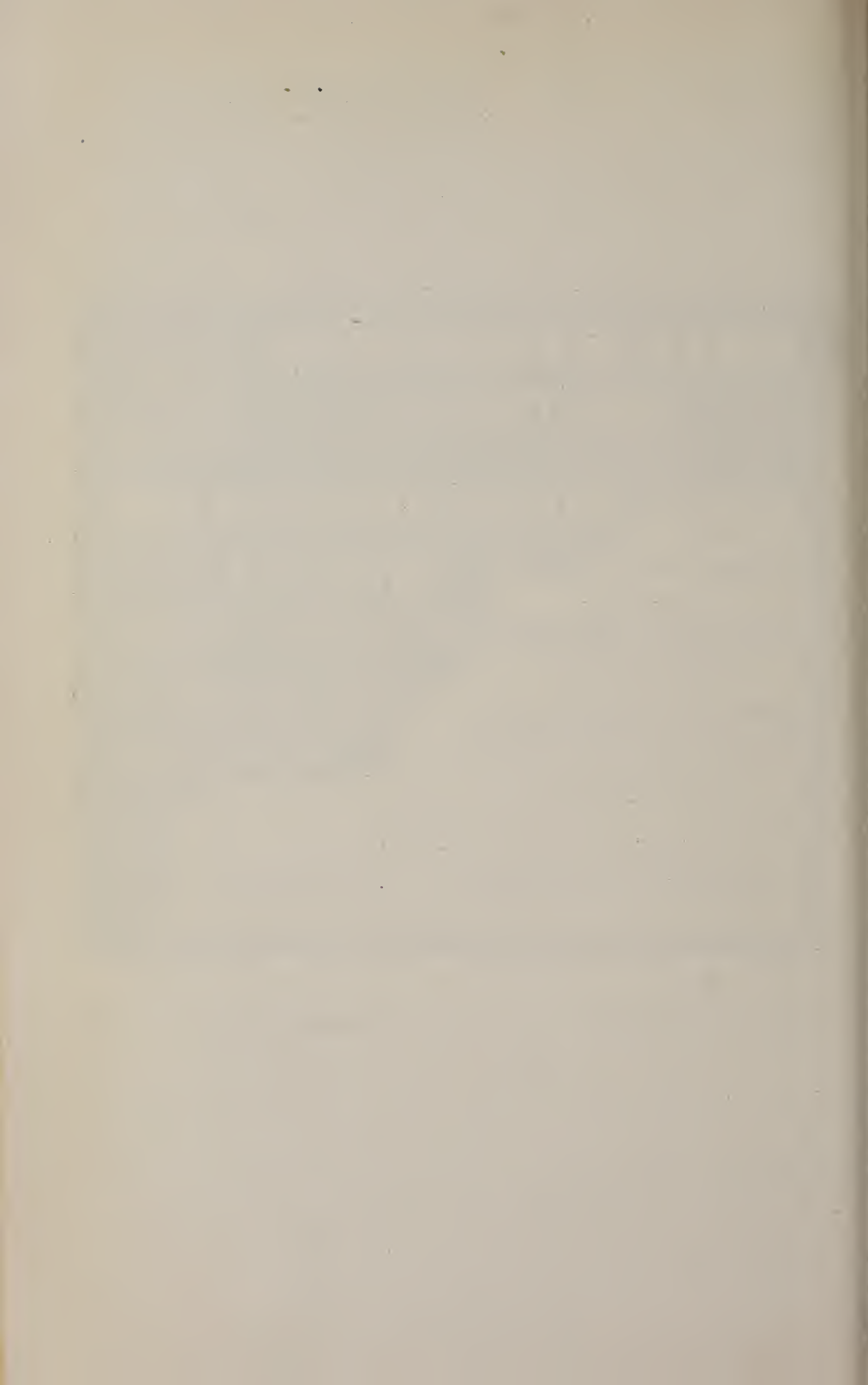
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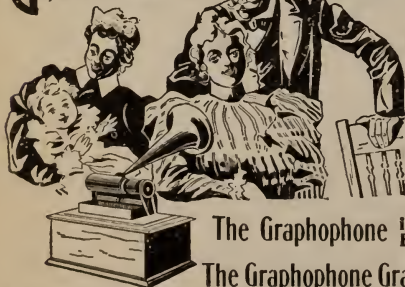
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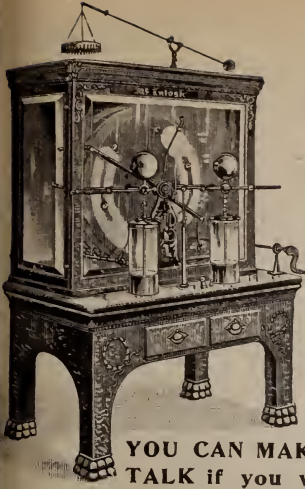
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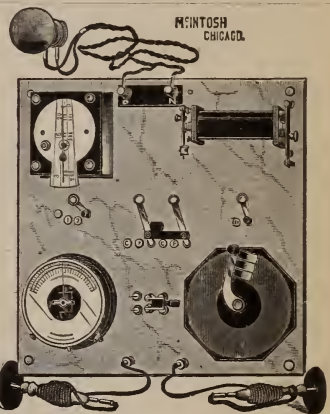
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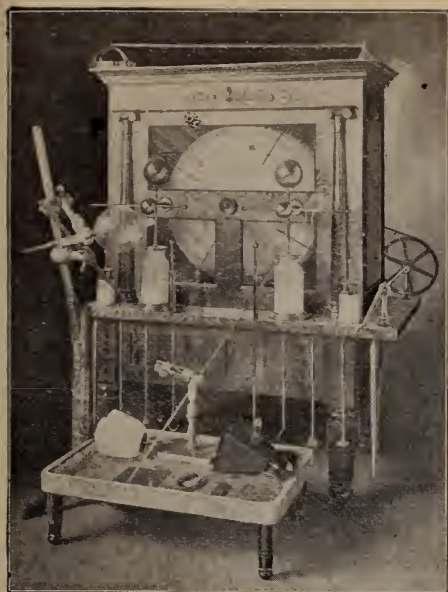
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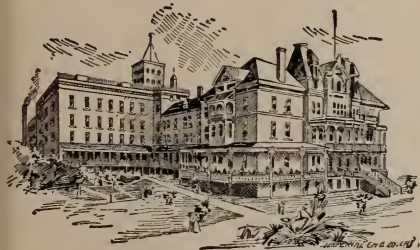
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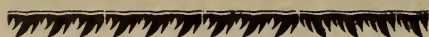
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